AUGUST 1961

THE Airman

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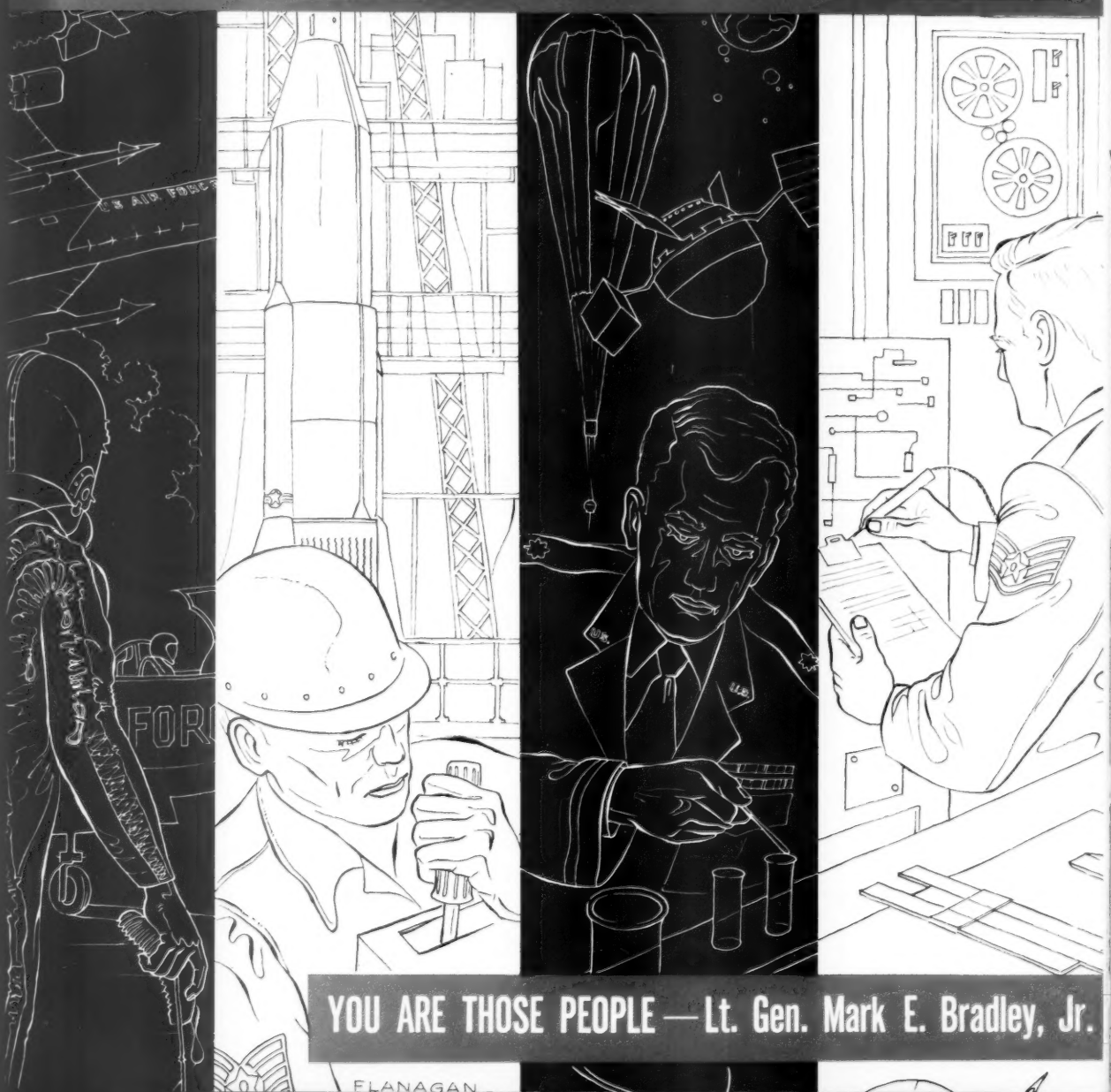

YOU ARE THOSE PEOPLE — Lt. Gen. Mark E. Bradley, Jr.

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LETTERS TO THE EDITOR

Requests

Sir: As a member of the Air National Guard, I am considering entry into pilot training via OCS. Would you print an article dealing with this type of schooling?

A2C David Dillingham
Fairfield, Iowa

● *Our January 1961 issue contained an article on the complete OCS program. A copy is in the mail to you.*

Sir: I am a freshman at Bakersfield College and am pursuing a major in history. To this end, I am conducting research for a paper on the Northrop P-61 *Black Widow*. Currently, I have all the information I need on its construction, development, flight characteristics and military acceptance. However, I am having great difficulty uncovering information regarding its combat uses. Would you ask your readers, who may be familiar with this phase of the P-61's career, to please contact me regarding combat operations?

Bill Beavers
108 Myrtle St.
Bakersfield, Calif.

Sir: The 23rd Tactical Fighter Squadron is maintaining a photo album of all pilots who have served with this unit since its inception. It is fairly current since 1952; however, we have virtually no pictures or information about personnel prior to that time. Would you please ask your readers to contact me if they can supply such photos or the names of people who served with the 23rd at any time?

Lt. John G. Schroeder
APO 132, New York, N. Y.

Sir: I am an avid and constant reader of THE AIRMAN and must compliment you on an outstanding publication. You regularly cover a wide

(Continued on page 28)

big horn, a big airplane, and a youth th big dreams capture the spirit of day and tomorrow. As a flight of the SAF's latest jets streaked over Edwards FB last Armed Forces Day, this CAP ndsman stopped playing long enough watch, and perhaps to dream of the y when he may sit at the controls.

Photo by MSgt. Phil Wimer
Edwards AFB, Calif.

THE Airman

OFFICIAL JOURNAL OF THE AIR FORCE

Volume V, Number 8 August 1961

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YOU AE

You number in the millithou

by Lt. Gen. MARK E. BRADLEY, Jr.
DCS/M, Hq USAF

(From an address to the
Armed Forces' Council Banquet, Kansas City, Mo.)

THE TERM "Armed Forces" has two sides to it—one is hardware, the other is people. If you read the current newspapers and magazines, you already know a lot about the hardware. That's where a big chunk of our tax dollars go, and right now it's weapons and defense spending that make news. So I want to shift the emphasis. I want to cover the "Forces" side of the picture—meaning you, the people back of the weapon systems.

Right now, about 2.5 million men and women are wearing Air Force, Army, Navy, and Marine uniforms. That comes to a ratio of about one uniformed person to every 75 Americans, or about 1.25 percent of our population. To put it another way, every man in uniform is safeguarding the freedom and liberty of 75 people back home.

We know, and the American people are more and more coming to realize, that service people aren't any different from their fellow citizens. We have the same ambitions. We laugh, joke, worry about taxes, and try to wrap our pay checks around a comfortable standard of living.

What sets us apart is the job we do, and the places in which we do it. Twenty-four hours a day we stand guard against war. By standing there—alert and ready—we are helping to make sure that war does not come. If war comes anyway, we are the ones who have to fight and win it if America is to stay free.

The Armed Forces are so vast, their missions so diverse, that even in any one service you cannot keep up with the many jobs your brothers in uniform are doing.

I can't tell you about all of them, but I do want to mention a few specific ones. If you take what I say and multiply it by several hundred thousand, you'll get a pretty good idea of what the people outside your own organization are like.

Let's take Maj. Thomas E. Miller, for one. Tom is 37 years old, married, father of two children. He has been a pilot for 17 years—flew a B-24 over Germany during World War II. Now he is a triple-threat pilot, navigator, and bombardier. As a B-47 pilot and aircraft commander, he has logged about 600 hours in training and alert missions, averaging two training sorties one week, three the next—each one keeping him in the air for 7 to 10 hours. About every two months, he spends one week on ground alert.

THOSE PEOPLE

Without you, the Free World could be lost.

This means that at any time during a 188-hour stretch, he has to respond instantly to the klaxon from alert quarters. These are long hours of sheer boredom, punctuated by the klaxon into moments of extreme activity, since each call to the crew is considered real until reaching the bomber and checking in by radio with the command post.

This job is not a unique one. More than 1,500 men are doing the same things day after day, week after week. They and their crews man the B-52s, B-47s, and B-58s of the Strategic Air Command. On their shoulders rest the bulk of the job of deterring all-out war. The bombers they fly are now, and for some time to come will be, this nation's primary strategic weapon system. They can go anywhere in the world. They can deliver either conventional or nuclear weapons; and the B-52s are being equipped with *Hound Dog* air-to-surface missiles for even more effective firepower.

SSgt. Thomas E. Hord is another representative individual. He's married, has one small son. Although he is only 26, he has already logged in more than six years with the Air Force.

Tom is a crew chief on an F-105. His job is to keep this aircraft ready at all times. His "breaks" come only while his plane is in the air. Otherwise, he's responsible for it. This means that at any time, day or night, he is on hand to check out the aircraft, make sure everything is in perfect working order, and personally guarantee to the pilot that it will perform as expected.

This particular sergeant, by the way, found a structural fault on the F-105 that led to a production change. This kind of concern for his aircraft is a trademark of crew chiefs throughout the Air Force. It's the kind of effort that really makes our weapon systems effective. The F-105 *Thunderchief* is the newest and most versatile fighter-bomber in the Air Force. It has a range of more than 1,500 miles, packs more wallop than was carried by all of our bombers during World War II. And one has flown faster than 1,200 m.p.h. Not only can the F-105 perform its own tactical missions—and support the strategic mission if necessary; it can also give close support to ground troops. This was clearly demonstrated at Nellis AFB not long ago.

The F-105 is one system in our Composite Air Strike Force—or CASF. This force is the self-contained full-combat air unit that we can send to any trouble spot on earth within hours. It is part of the Air Force's contribution to the nation's ability to deter or cope with limited war. The sergeant I mention is one of several hundred crew chiefs throughout the Air Force. They are the ones whom we confidently depend on to make certain that our bombers, fighters, tankers, and transport aircraft are ready to go at the sound of the klaxon.

A third person I want to talk about is A1C William F. Day. Bill is a young man from Quincy, Mass. He's also married and a papa. In the Air Force, he is a jet mechanic with six years of training and experience behind him.

If you've ever been in engine repair shops or around jet engine test stands, you can appreciate the complexity of Bill's duties. He has to be right when he replaces worn-out parts, adjusts others, and double-checks his work. There's no such thing as getting a stalled aircraft towed back to the shop from five miles up and a hundred miles away.

Bill Day is stationed in the United States now, assigned to a maintenance squadron. He and many others like him work around the clock, making certain that Air Defense Command's interceptors are ready to check out a bogey *anytime*, or guaranteeing that SAC bombers can roll down the runway within minutes of an alert. Many of their fellow jet mechanics are overseas—some working in an environment like that in the United States, some in frigid climates such as at Thule, some in torrid regions like Saudi Arabia. But wherever they are, and whatever their obstacles, they keep our fighter and bomber engines ready. There has to be something more than the pay that keeps these fellows in the service.

Now let me tell you about SSgt. Fred C. Roper. He is what they call in the missile business a control systems mechanic. He is a high school graduate with an Air Force technical course in hydraulics. His is one of the most tedious jobs in the Air Force—that of checking out the hydraulic system of the *Titan* ICBM. In a sense, he is doing pioneer work because we have not had enough experience with these birds to lay down detailed job descriptions. As a matter of fact, during one inspection he discovered a flaw which ultimately led to design modification.

We don't have a lot of Fred Ropers around yet. But we are moving in that direction at a rapid clip. What with the *Atlas* and *Titan* ICBMs coming into being now, and with the less expensive but more efficient

Minuteman on its way, mechanics like him will be vital to our strategic force. There is no substitute for their kind of special skill.

Another man I want to mention is a native of Kansas. He is Capt. Kenneth E. Davison, 35-year-old interceptor pilot for the Air Defense Command. Ken's job is one of the most important ones you can imagine; when the radar picks up a bogey, Ken is one of the men who has to go take a look to find out what it is. The bogey may turn out to be a commercial plane, one of our own fighters, or perhaps a tanker or bomber.

If the bogey happens to appear over Alaska or away from the mainland anywhere in the world, a pilot like Captain Davison may learn that it's an enemy fighter or recon. They never know.

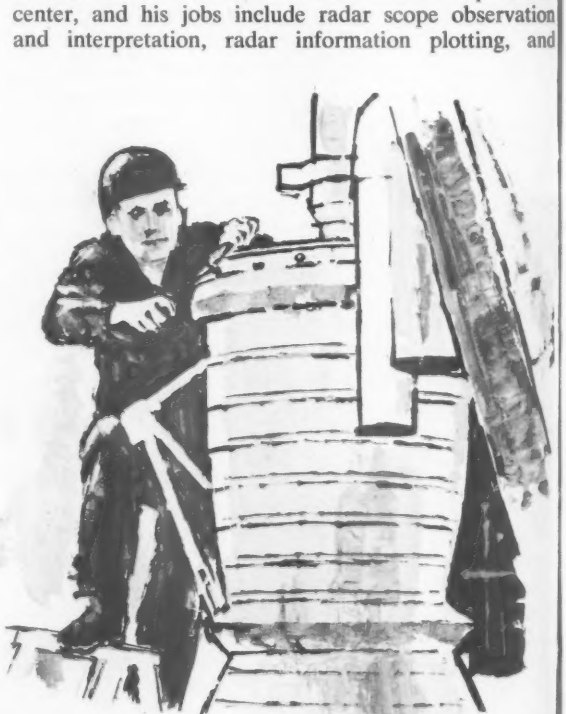
Like the bomber pilot, the fighter pilot is on call 24 hours a day. The squadrons rotate their alert duty people, so that a flight is on alert every fourth day. Alert means being in the quarters only yards away from the aircraft. When the alert sounds, the pilots scramble. In an emergency, the alert status of the man may last as long as 72 hours or more. In many ready rooms of ADC the definition of *Alert* is "hours of boredom interrupted by seconds of hair-trigger tension."

The F-102 that Captain Davison flies is one of our supersonic fighters. Others are the F-100, the F-101, the F-104, the already mentioned F-105, and the F-106. These are used by air defense units or by tactical units at overseas bases. They can fire either air-to-air rockets or machine guns and cannon. The F-101, the F-102, the F-105, and the F-106 are all-weather aircraft. The F-104 is a day/night interceptor.

On the distaff side of the house, women in the Air Force are holding down a lot of jobs, some administrative, some technical, some medical. A very special WAF is Lt. Col. Elizabeth Guild. I mention her because she is the only WAF officer now on flight pay. She is a technician at Aeronautical Systems Division in Dayton, Ohio. She holds the Air Medal, the only WAF to do so, and was the first woman nonflyer to break the sound barrier—in an F-104B. She is also the only woman who has flown in the B-58. Her work will help us solve noise and vibration problems connected with modern space vehicles.

Colonel Guild, many other Women in the Air Force, and many of our male technicians are carrying out unheralded, unglamorous research jobs. You don't read about them, even when their programs are successful. But I'll tell you one thing—without them our research and development programs would be sadly lagging.

Joe Dean Pierce, an Airman First Class, is another young man who has a tedious job that requires a lot of concentration. He works in a combat operations center, and his jobs include radar scope observation and interpretation, radar information plotting, and



teletype display. He and hundreds of others like him are the key links between radar pickup and information relay. Along the Dew line, in Greenland, in Alaska, and throughout the United States these men play a role that no machine can yet duplicate. And if you don't think their job is taxing, try sitting in front of your TV set, before the first program comes on, just staring at the channel signal and listening to the whirring noise. Do that for 30 minutes, with your feet in ice water and your hands holding ice cubes, and you'll get an appreciation of what these radar specialists do for hours at a time, months on end, at the top of the world.

Before I complete this run-down I wouldn't be fair if I didn't call your attention to one of the more routine jobs such as the one that TSgt. Thomas R. Morris is holding. He's a procurement specialist—one of my key responsibilities. His job is to have on hand the supplies his people need, *without wasting money*. As one of his accomplishments, he devised a method of getting approval for certain purchases cut from a one- to three-month time lag to six days. This makes it possible to provide support as needed without having excess supplies on hand. I can tell you from first-hand experience, that this is a thankless, worrisome, never-ending task. But the nation can be proud of Tom Morris and others like him who are helping to make it possible for us to have the required defense without spending a much bigger chunk of taxpayer dollars.

Obviously, I have not covered all the wide variety of jobs Air Force people have. And I haven't mentioned the people in the Army, Navy, and Marines. But you can make an extension of my statements: the man in the tank, the man behind the cannon, the seaman with the *Polaris* subs, the Marine with his assault weapon—they are no different from the ones I've called to your attention as specific examples.

They are people—warm-blooded, patriotic Americans. They've got jobs to do—and they're doing them. They are doing their best to keep the cold war from getting hot.

There are casualties in this cold war. Some of our people, training to keep our defense strong, sometimes have to pay the supreme price. I would be unfair if I did not call them to your attention.

Such a one was Maj. Robert S. Fitzgerald, skilled pilot, "boss" of the *Thunderbirds*. Major Fitzgerald was killed a few weeks ago while he was coaching the aerobatic team which he, more than any other man, had helped to develop.

"Fitz" was a B-24 pilot during World War II, an F-84G pilot in Korea. He was more than a pilot, more than a man who loved flying. He seemed to be flying itself. He once said: "My motivating ambition has always been to be a military aviator."

He realized that ambition. More than that, he led other Air Force pilots to believe as he did, and to fly almost as well. What he gave the Air Force—and the nation—can never be fully measured. But it is my sincere conviction that he has done as much as any other single man flying recently to give our Air Force the posture, the confidence, and the ability it has today. I salute him as a personal friend, a fine fellow officer, and a man the nation should never forget.

The Armed Forces of this nation are ready at a moment's notice to meet any demand this nation makes. We have superior weapon systems. We have highly effective support equipment.

And—most important—we have the skilled, dedicated, efficient people necessary to do the job.

You are those people.

A quiet revolution in the Reserve promises

MORE MARGIN FOR VICTORY

by MSgt. FRANK J. CLIFFORD, Airman Staff

A SURGE OF EXCITEMENT swept through the loose knot of passengers and idle sightseers at Salt Lake City Municipal Airport. Moments before, the mid-Sunday calm was ruffled when an F-100 flashed across the field in a medium-level pass, followed almost immediately by a shrieking F-104. At the end of their run they pulled up in almost vertical climbs and vanished into the bright blue bowl of the desert sky.

Now both planes were back. The F-100 landed first, popped its drag 'chute and coasted to a halt at the far end of the runway. Mild comment rippled through the handful of spectators lounging on the fence.

Now the F-104 came in, its nose too high, its tail too low, its stubby main gear reaching for the black-streaked, white cement runway. The main gear touched in a puff of pale blue smoke. With a sharp-pitched screech the tires protested the abruptness of the contact. Down went the nose in a gentle arc, the tail 'chute blossomed at the end of a long steel cable stem. The keen-eyed noted this plane carried two men; the cognoscenti passed the word that this was an F-104B. The crowd nodded wisely.

Salt Lake City is accustomed to military aircraft. Dozens of military flying fields dotted the area in World War II and since the war the municipal airport has been home base for the 151st Fighter Group, Utah Air National Guard. The crowd turned its attention elsewhere.

"Look, Charlie! What's going on out there?" a wind-burned bean-pole of a man said, pointing to where the two fighter planes stood crouched on the ground, their powerful jet engines whining.

"Trouble, I betcha. Look at the fire trucks—and all those other cars. Man, this ain't no ordinary landing. Those planes got trouble."

By now those who had been watching from inside the terminal were outside, pressing against the waist-high cyclone fence that separated the terminal from

On a quiet Sunday at Salt Lake City Municipal Airport, observers witnessed the dramatic climax of a two-day exercise by Air Force Reserve Recovery units

the ramp. On the field the two war planes began to taxi toward operations, led by a civilian airlines "Follow Me" truck and trailed by two ungainly firetrucks which swayed and lurched in counterpoint rhythm to the 1,000 gallons of water and firefighting foam sloshing about in their bellies. Firemen in bunker coats clung fast to their nozzles atop the trucks as the caravan swept past the crowd and advanced on the Air Guard parking area. A civilian station wagon, plastered on each side with hastily and not too expertly painted red crosses, and with two men in Air Force uniform aboard, brought up the rear of this strange parade.

"There's an Air Force guy in the tower," someone said.

"And look at all the Air Policemen on the ramp up there," someone else said, pointing in the direction where the mysterious convoy had finally come to a halt.

Was it war? suddenly declared on a Sunday morning as it had been 20 years before? The Cuban crisis was bubbling; shooting had broken out in Laos, and in Europe the marathon nuclear test ban talks seemed headed nowhere. Was it war?

No. War had not come to the United States that bright April morning. What the airport crowd had witnessed was the dramatic wind-up of a two-day exercise by the 8636th Recovery Group and the 9750th Recovery Squadron, both based at Salt Lake City. The 8636th, commanded by Lt. Col. Raymond K. Fadel, a youthful, hard-driving insurance executive in private life, is one of seven such organizations which started a 10-month test run last September to shake the bugs out of the recently adopted Air Force Reserve Recovery Program.

Running in double harness with him is Lt. Col. Charles C. Kimball, a 42-year-old solid bundle of energy and persuasion, commander of the 9750th Air Force Reserve Recovery Squadron. He earns his living as owner of an interstate commercial display firm.

The Recovery Program sweeps into the dustbin of history many of the traditional ideas of how a ready reserve force should occupy its time when there is no hot war raging. Already the program has given many Reservists a new mission with visible, day-to-day results. It will, within a reasonable time, provide the nation with what amounts to almost twice as much Air Force for little more than the price of one—and, most important in this day of supersonic aircraft and hypersonic intercontinental ballistic missiles bearing nuclear loads, give this country a dispersal and strike-back ability that could spell the difference between winning or losing. The Recovery Program will eventually encompass 82 groups with 200 squadrons. Unchanged in this new scheme of things are the units currently operating under the "Ready Now" concept.

What is the Recovery Program? Why is it of such importance to the Air Force and the nation?

Simply stated, it is an ingenious plan to use Ready Reservists to provide dispersal and safe landing sites for Air Force offensive or defensive aircraft returning from missions in the initial phases of global war. The Recovery units, manned entirely by Reservists, are set up to go into action at once, arranging emergency communications, weather information, decontamination of aircraft, medical services, minor repairs sufficient to allow the plane to proceed to a regular military base, and billeting and messing of crews.

Examined with the clear, if somewhat chill, eye of reality the Recovery Program is an absolute necessity. With restrained simplicity Lt. Gen. William E. Hall, Commander, ConAC, spotlights the need: "The assumption is that in a major conflict many Air Force bases will be damaged to such an extent that aircraft will be unable to land at their home bases or preplanned alternates."

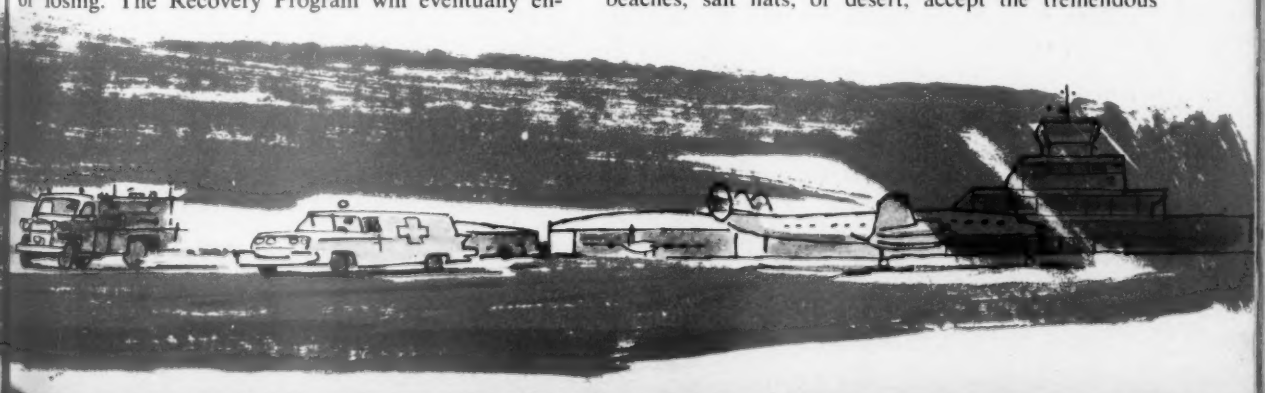
The picture, grim as it is in this technically advanced age, is this: if the cold war suddenly turns hot this nation can expect to be struck by nuclear attack in the opening salvo; the specific locations of air bases, and other targets can be determined; guidance and navigational systems can guide a warhead to any point desired.

Therefore, the United States can expect to lose a number of installations while our planes and missiles are delivering a counterattack. If the returning force were forced to abandon or crash land their planes, or even if they were able to land their craft undamaged on non-military airfields lacking trained Air Force recovery teams, the war could be lost in the first round.

The Recovery program drastically reduces this danger and does it at scarcely noticeable cost.

The idea that grew into the Recovery concept started in 1957 as a conversational gambit batted back and forth by members of 9431st Air Reserve Squadron, an Idaho unit based near the former Pocatello Army Air Base which had been "civilianized" following WW II. The talk centered on the vulnerability of the Strategic Air Command. Could a massive surprise attack wipe out a significant number of its bases? If so, what would become of the aircraft returning from missions?

Could they be diverted to civilian air fields or abandoned WW II military fields? Could makeshift, catch-as-catch-can improvisions, such as superhighways, beaches, salt flats, or desert, accept the tremendous



A civilian wagon is pressed into service as ambulance for the evacuation of simulated casualties to hospital.

weight of present-day planes? If any or all of these were possible how could the planes be returned to the fight?

A prominent voice in these discussions was that of Lt. Col. Clinton V. Murdock, then and now commander of Flight "A," 9431st Air Reserve Squadron. "Clint," now a stock breeder and farmer, flew 26 missions in the ETO in C-47s and participated in the airborne operations on D-Day in Normandy, the invasion of Southern France, and the Battle of the Bulge.

In lengthy correspondence, and later in a personal appearance, he sketched out his ideas to interested officers in the Pentagon. In one of his letters to Hq USAF, Colonel Murdock spoke for scores of Reserve units: "We are located adjacent to the former Pocatello Army Air Base, now . . . a municipal airport. It has runways of up to 8,325 feet with a 1,000-foot overrun on both ends and a width of 300 feet . . . we are told by the engineer in charge that the runway's depth is such that it will handle any aircraft now flying. We believe that if we could be given the mission in time of emergency, or in particular in the event of atomic attack on this country, of using this airport . . . as a dispersal air base for the Air Force . . . it would be within our capability . . . and of use in the defense of our country."

"Clint" Murdock's groping hands, in his eagerness to serve his country, had reached into the grab bag of ideas and fastened upon a good one, possibly the best to emerge in years.

His letter might have been written by any number of Reservists because the situation he described was duplicated in scores of locations across the country.

World War II left a residue of military installations in every state of the union. When the shooting stopped most of these facilities were shuttered entirely or put on stand-by status or turned over for civilian aviation. Many were complete air bases, with all the support buildings in conditions ranging from good to excellent.

This situation was hand-made for the Reserve since many units had office and training space on these air bases. Other units were within easy motoring distance. Another plus factor was the fact that the Reservists were in most cases lifelong residents of the region and knew the local scene in intimate detail. Importantly, they not only knew the geographical lay of the land but they also knew the residents of the region—indeed, many of the Reservists were themselves leaders of the local community.

Murdock's letter laid out the broad foundation on which the present Recovery Program is built. He wrote: "An air base unit could be formed with Reserve personnel organizing the availability, only in the event of an extreme emergency, of civilian contractors to supply the base with fuel, minor maintenance for aircraft, food and housing for the air crews, and other services in line with what would be available immediately in the local area. The actual operation of the field could be either taken over or closely supervised by the Reserve and a communication net established, using regular telephone lines, radio, or both, to higher headquarters. Security forces could be provided by the Reserve."

Except for refinement and more specific detailing of duties this is the formula for the present Recovery units. The exact composition of each Recovery squadron and group will be tailored to fit the location of the units and the mission they can be expected to handle. An outfit based in desert country, for example, would bear only passing resemblance to a unit near the coast. An average squadron will consist of about 150 people.

Colonel Murdock's Recovery plan, gathering papers at every stop, shuffled along through the Pentagon where it was taken in tow by a fast-stepping task group headed by Maj. Gen. Harold R. Maddox. In January 1960 the refined plan had the approval of almost all concerned and orders were issued to put it to the test.

Seven Reserve Centers were converted to Recovery Groups. These prototype, or sample, units assumed their new identities and mission on September 1, 1960. But before they ran up their new pennants a great deal of preliminary work had to be done. Provisional organization structures were drafted up—they had to be provisional since nothing remotely like this had ever been tried before. Regular Air Force cadres assigned to the Air Reserve Centers stood at the elbows of the Reservists as they reconstructed their units.

Decontamination crews sluiced the aircraft down with a generous torrent of water from fruit orchard sprayer.

Ironically, the father of the Recovery concept was not destined to assist in the delivery of his brain child. No Recovery unit was earmarked for Idaho; the Recovery mission in Colonel Murdock's Reserve Region, the 6th, went to 2647th Air Reserve Center, Salt Lake City, Utah. When September 1 dawned the 2647th stepped briefly into the limbo of "retired" units and emerged as the 8636th Reserve Recovery Group. Along with it the 9750th Reserve Recovery Squadron was activated.

These were the units that gave the Salt Lake City airport crowd such a turn when they carried out a Recovery exercise last April.

Months before the 8636th became a real unit staffed by flesh and blood people, its commander, Lt. Col. Ray K. Fadel, working in close cooperation with his staff, undertook the back-breaking task of building the rigid framework that would later support the full organization. Lending support and guidance every step of the way was Lt. Col. Henry G. Talmage, Deputy Commander, 2647th Air Reserve Center. Talmage was in the odd position of very actively aiding and abetting the dissolution of his own organization—and he did it with such skill and thoroughness that ConAC tapped his outfit as one of the seven "test" Recovery units.

The upcoming reorganization of the local Reserve units did not pass unnoticed by the citizens in and around Salt Lake City. Newspaper stories, supplied by the Reservists, explained each development as it took place. This is where a unique Reserve "plus quantity" was exploited for all it was worth. The fact was that the Reservists, officer and enlisted, were dual personalities—Utahans *and* Air Force Reservists. What was good for the Reserve was good for Utah; what was good for Utah was good for the Reserve.

Getting the story out, ungarbled and with the authority of the commander, fell to Maj. Arthur W. Atack, in private life a professional news and radio man. Early in the development of the Recovery concept it was recognized that active support from the civilian community would be the key to whether or not the program would work, and continue to work after the initial hot breath of enthusiasm cooled.

This called for deep foundations. The Governor of Utah, the Hon. George D. Clyde, and the Mayor of Salt Lake City, J. Bracken Lee, along with key business leaders up and down the length of the state, were fully and promptly informed as the kinks in the program were flattened out. For their part the local leaders were generous in contributing the fruits of their own experience in business, industry, management, and government. Thus, an impressive store of brains and energy was available to the Reservists.

Substantially the same civilian-Reservist harmony was struck in Worcester, Mass., Wyoming, Pa., Columbia, S. C., Louisville, Ky., New Orleans, La., and Des Moines, Iowa, sites of the other six "test" units.

In examining the make-up of Recovery units, orthodox military men come to an abrupt, puzzled halt when they can't seem to find any evidence of a Unit Authorization List (UAL) prescribing the hardware needed to make the thing go. A search for a UAL would be fruitless—there isn't any. Aside from a random collection of desks, chairs, and a few basic office machines, all the materiel that would normally be found in an air base unit is either acquired as surplus or on an open-end contract basis.

A prime example of "recovery" tactics practiced by the Reservists to get their organizations functioning is found in the tale of how the 9750th Reserve Recovery Squadron acquired its capacious building adjoining the Salt Lake City airport. The building, a huge, one-story wooden structure of two parallel wings joined like the letter "H" by a 200-person capacity auditorium, was a leftover from WW II. The city owned it; the Reservists needed it. The city wouldn't sell it and even if it would, the Reservists had no money to buy it; in fact, they had no authorization to rent it. But they needed it.

Two snowplows, acquired as surplus cleared away the legal roadblocks. Salt Lake City has occasional need for snowplows but not enough for the city fathers to unsnap the municipal purse to purchase even one. Could a deal be arranged wherein the Reservists would loan the plows to the city and in return acquire squat-

ters rights to the building? Something could be, and was worked out. The plows "and other valuable considerations" unlocked the premises, the Reservists were in. The "other valuable considerations" turned out to be a charge of $1 for a two-and-a-half year lease. Maj. John J. Huddle, Training Unit Officer, snipped the fiscal red tape by dipping into his pocket for the rent.

Recovery Group headquarters was acquired in more formal style. A 100-year-old building, still robust and sound, was found on Ft. Douglas, a frontier cavalry and infantry post that sits like a sparkling jewel overlooking Salt Lake City. Diligent application of the scrubbing and paint brush by the Regular Air Force cadre and Reservists restored it to its original splendor.

If a Recovery unit has no UAL—no tool boxes, trucks, aircraft maintenance gear, fire fighting equipment—how can it expect to perform its mission?

The answer is both simple and complex. Surplus government equipment of all kinds will get a second lease on life as it is acquired by Recovery units and put into working order. The 9750th Recovery Squadron at Salt Lake, for example, picked up a complete mobile transmitter/receiver radio outfit from a nearby Navy depot due to shut down soon.

At Worcester, Mass., men of the 9000th Recovery Squadron acted fast when they learned that a cruiser was to be decommissioned. They had their eye on such important odds and ends as bedding, dishes, and additional firefighting equipment, as well as anything else that might be useful to the Recovery mission.

A little more complex is the "open-end contract" procedure under which the Recovery unit enters into contracts with local merchants for aircraft fuel and lubricants, food, emergency shelter, and other goods and services. Contracts are also drawn up to provide the Recovery units with heavy equipment such as bulldozers, cranes, trucks, and other specialized gear. Formal agreements are arranged with airport operators and municipalities. Until there is a need for these goods and services there is no charge.

"In arranging these contracts you learn a great deal about your own community," Colonel Fadel points out. While the average citizen is aware that there are petroleum fuel dealers in his town few could give the precise location and capacity of the local fuel trade. Similarly, not many individuals could be expected to know how many trucks, bulldozers, cranes, etc., could be mobilized in an emergency.

Through necessity the Recovery units are now making complete inventories of everything that might add to their effectiveness. Casual knowledge is now being evaluated and codified. Spotted throughout the country the 200 Recovery Squadrons will eventually acquire a staggering amount of information useful not only in war but also in blunting the effects of a natural calamity.

While the material resources of the region are being inventoried, Recovery units are not ignoring the geography surrounding them. In this regard the experience of the 8636th Recovery Group demonstrates the eagerness of the Reserves to leave no stone unturned in their search for a better way to do their job.

Routes of clear, through streets, state-wide, were plotted on maps. Airports and airlines checked for mechanics, tools, and supplies. With civilian airports being the logical sites for Recovery actions their survey captured early attention. Aerial photographs were taken of all fields in Utah and detailed checks made of the major ones. A standardized survey sheet was devised for this purpose; engineering drawings were prepared and all necessary details noted. Not overlooked was the possibility of using super-highways and the rock-hard salt flats in the state.

Propelled by a stepped-up training program and paced by the frisky enthusiasm that goes with a new and exciting task, the Salt Lake Recovery group was eager to put theory to the test. In November 1960, during a week-end training session at Wendover AFB, Utah, an all-but-abandoned Air Force base west of Salt Lake, they got their chance.

Ostensibly, the two days in the field were to be spent in getting familiar with the layout of the base. In the process, equipment would be examined and inventoried for possible use in the Recovery program. Only a few key officers knew the outfit was to take its first plunge into a Recovery attempt.

While the wintry winds hurled huge, feather-light clumps of tumbleweed across the broad, deserted acres of the silent flying field, the Reservists fanned out as their specialties dictated. Task forces under Maj. Arthur W. Spencer and Capt. Norriss Sigler, communications officers, quickly located and put into operating condition the ground and radio communications net.

SSgt. Harry A. Wesche, a technician in the Salt Lake City Veterans Administration hospital in private life, opened the hospital. With most of the personnel of the 8636th Recovery Group and the 9750th Recovery Squadron conveniently on hand, he took the opportunity to bring everyone's immunizations up to date. Lending a hand with the hypodermic syringe was Captain Parker, a pharmacist.

The inner man was not neglected. Food service

technicians "organized" an abandoned dining hall and the aroma of steaming "C"-rations soon blended with the crisp, clear winter air, and hustling Reservists paused in their tasks to savor the inviting fragrance.

Colonels Fadel and Kimball prowled the area in their "staff" cars, in reality their own private vehicles. Tall, carrot-topped Capt. Donald Cook, a positive personality with a quick smile, who in "real life" is a Flight Safety Officer at nearby Hill AFB, put his aircraft maintenance crews to locating and evaluating maintenance gear.

On the afternoon of the second day the "balloon went up" with dramatic suddenness. A C-119, simulating a stricken B-52, was inbound. For the exercise the plane was assumed to be contaminated; it had wounded aboard, and had minor mechanical troubles. The runway was "damaged." The 8636th was to "recover" the plane, decontaminate it, provide for the wounded, patch up the ship, and send it on its way where more extensive repairs could be made.

The Reservists responded like seasoned veterans. Crash and rescue trucks were pressed into service, the tower was manned and communications established between air and ground. Bulldozers went through the motions of repairing the runway. When the plane finally touched down, mobile equipment intercepted it, the crew was removed, the "injured" whisked to the hospital. Decontamination crews sluiced the plane down with a torrent of water cascading from a fruit orchard sprayer. The plane was then refueled and put into shape for its return to home base.

The Wendover exercise moved the 8636th out of the classroom and into the field, out of the cushioned world of theory and into the realm of hard fact. They made the transition in professional style. In a second Recovery exercise, in March 1961 at Provo Municipal airport, the outfit polished the bumps and knobs from their technique.

Lt. Col. Charles C. Kimball (left) discusses the program with Joe Bergin, civilian manager in charge of airport. Bergin is a veteran of 30 years flying.

During the months the 8636th was undergoing its transition, a full-blown public relations effort was launched and kept under a full head of steam. An early and enthusiastic ally was Joe Bergin, manager of Salt Lake City Municipal Airport. A 200-pound, six-foot-three giant, Joe Bergin at 52 is a powerhouse of energy and ideas. He got his wings when he was 19 by way of barnstorming cow pasture instructors after four one-hour lessons. Joe has more than 5,800 hours, most of it single-engine time. He is a flight instructor and holds a commercial ticket.

Most important to the Reservists, he is the chief executive of the airport and his recommendations carry impressive weight with the city government. His title of State Director of Aeronautics and his position as Wing Commander of the Utah Civil Air Patrol lend additional push, if that is necessary. If more credentials are needed it might be mentioned that he is currently supervising a $12,000,000 addition to the airport which will increase its terminal space from 25,000 square feet to 225,000, and with other facilities expanded proportionately. Clearly, an important man.

Joe Bergin worked hand in glove with the Reservists in staging their Salt Lake Recovery exercise. With the Reservists, he lined up civilian air lines at the airport; their equipment and good will would come in handy.

While the exercise was startling in its realism to the casual airport visitor, to those in the know it was the natural result of carrying out well-laid plans. The kind of detailed planning that is the only kind permissible in so vital a mission.

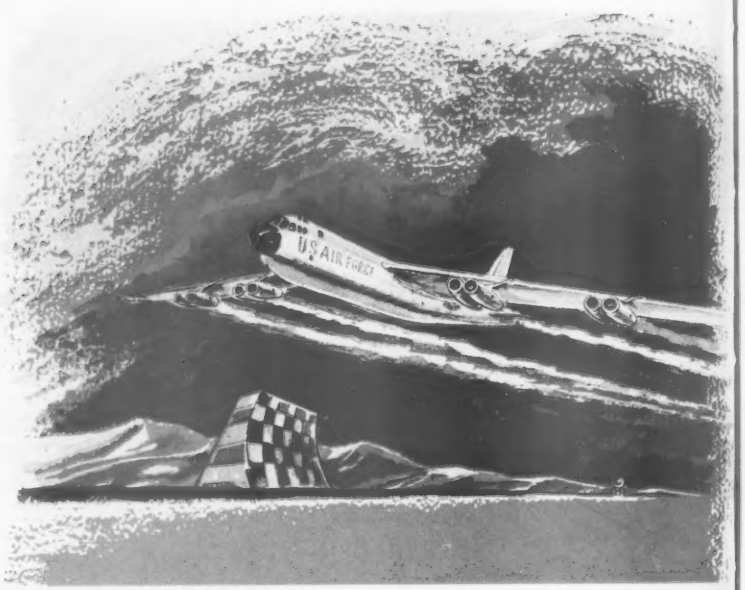
When April 16th dawned all was ready at Salt Lake City Municipal Airport—and also at George AFB, Calif., where an F-100 and an F-104B were ready to play their part. Capt. Bendel W. McDonald, 31st Tactical Fighter Wing, a seasoned flyer with 4,128 hours, was to fly the F-100. In the two-place F-104B were Capt. Daniel R. Klix and 1st Lt. David A. Diffenderfer, both of the 497th Tactical Fighter Wing. Aside from the "mere" detail of flying their craft to Salt Lake the flyers had nothing to do—just play it by ear and let the Reservists do what they had been training for.

That's the way it worked out. The planes appeared over the field precisely on schedule, landed without incident, were shepherded to the Recovery area and "recovered." The action was almost an anticlimax but actually it was a subtle tribute to a smooth-running operation. The planes were "decontaminated," "repaired," and enroute back to home base before 3 p.m. In the meantime the "injured" pilots were loaded into "ambulances" and actually whisked from the airport to a downtown hospital which had been alerted. A substantial meal proved an ample cure for what ailed the pilots.

The drill was over but it heralded just the start of the Air Force Reserve Recovery Program. The scene at Salt Lake can be expected to become routine—but not mechanical. The Reserve has a new mission and with it the nation will don still another blanket of protection in the Cold War.

SUBJECT: SAC Briefing on AIRBORNE ALERT
TO: All Air Force Personnel

So that you may gain an understanding of the implications inherent in mounting and maintaining an Airborne Alert Force, the Commander in Chief, Strategic Air Command, cordially invites you to attend this top-level briefing.

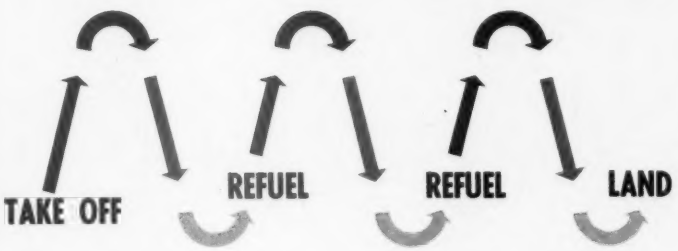


WARNING AND REACTION

Existing U. S. warning systems are believed adequate against an enemy bomber attack. These systems provide time enough for SAC's ground alert force to be launched in a crushing counterattack. However, at this time and until such missile warning systems as BMEWS and *Midas* become fully operational, SAC must take steps to insure that its bomber force can survive and destroy the enemy in a no-warning situation. It is for this reason that SAC has tested and proven an airborne alert—over 7,200 test sorties have been flown.

MOBILITY

The airborne alert concept is based on the fact that if the enemy does not know where you are, he cannot hit you. Under this plan, some of SAC's B-52 bombers would be in the air 24 hours a day, every day of the year. Roving the skies, these planes would be ready and able to retaliate immediately if a potential enemy were to attempt a surprise attack. Airborne alert aircraft stay in the air until their replacements, other combat-ready bombers, are in a designated flight pattern. The B-52s are refueled in the air by KC-135 tankers as often as necessary to insure the needed range and endurance. Ordinarily airborne alert missions last about 24 hours.



PERPETUAL TARGET COVERAGE

Flight plans have been worked out to provide for maximum coverage of potential enemy targets. Takeoffs and refuelings are scheduled so that at all times some of the bombers in the air have sufficient fuel aboard to reach targets deep in enemy territory should they be ordered to launch a retaliatory attack. Each bomber flies a pre-planned "in-and-out" pattern, dictated by fuel and range considerations.

LOGISTICS

The airborne alert, with its increase in flying hours for SAC bombers, naturally increases the need for spare parts and other supplies. Getting these items is a critical factor in the alert program since many parts, such as engines, require as much as 18 months to procure. The spare parts purchased to insure an "on-the-shelf" capability will be needed, and all will be used as long as the B-52 remains in the SAC inventory. Spare engines and other items needed to insure that SAC can mount any degree of airborne alert ordered by the President will not be permitted to deteriorate in warehouses. They will be placed in the supply channels between the airplane and the depots, constantly being used, rebuilt, and modernized. About 90 percent of the parts that wear out on an airplane are rebuilt in repair depots and returned to service.

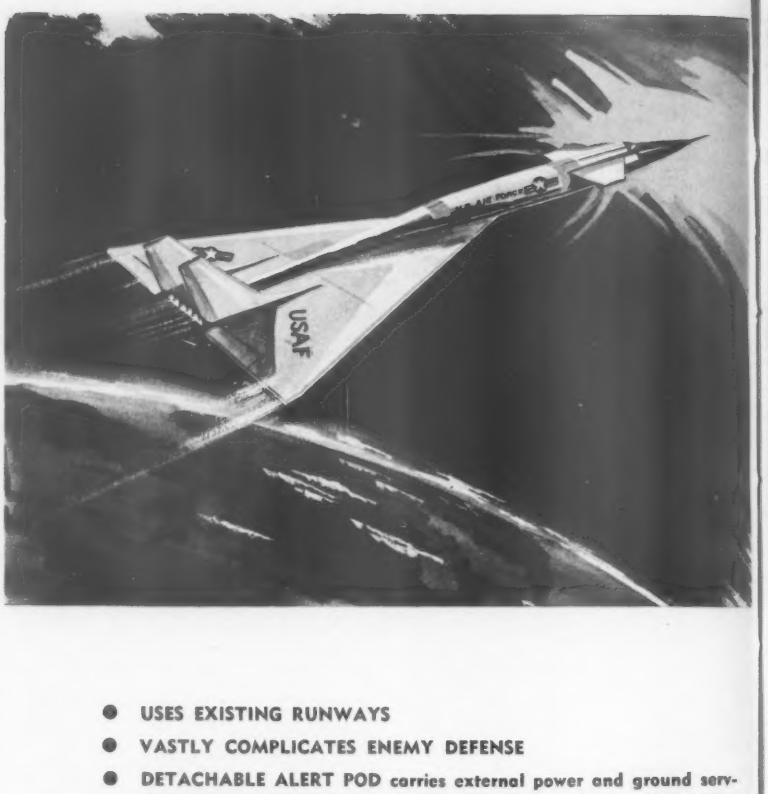
Today, airborne alert missions are part of the regular crew-training program conducted by SAC B-52 units. These missions are flown under the most realistic combat conditions.

THE B-70

In 1954 and 1955, when intercontinental ballistic missiles were being considered for their important role in deterring aggression, military strategists recognized that even these advanced systems could not be the ultimate weapons in our arsenal for peace.

Realizing the need for a flexibility of operation and an accuracy not found in missiles, Air Force planners reached a decision in 1955 to build a manned bomber which would be available for use during the 1965-1975 period. Out of this decision came the B-70.

Experience and knowledge gained from the B-70 program, including many engineering breakthroughs, will prove invaluable to SAC.

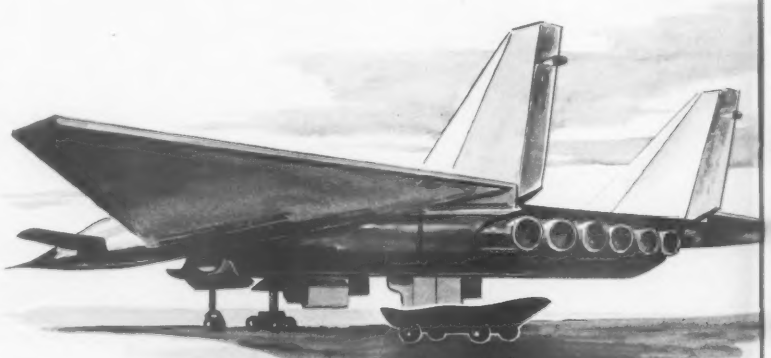


ITS CHARACTERISTICS

The B-70, named the *Valkyrie*, will be about the same size as the B-52, but approximately 10 percent heavier. It will normally be flown by a crew of four—pilot, copilot, bombardier-navigator, and defensive systems officer. The B-70 is designed to fly at a speed of 2,000 m.p.h. with a range of more than 6,500 nautical miles without refueling. However, it will be capable of aerial refueling which will extend its range to limits imposed by the endurance of the crew. This means it could be used in airborne alert should the requirement exist. It will operate at altitudes above 70,000 feet and will be capable of carrying a variety of nuclear and thermonuclear weapons. Six J-93 turbojet engines with afterburners will power the B-70.

Despite its speed and size, the B-70 is designed to operate from the runways now used by the B-52. Its Mach 3 speed, altitude, range, and maneuverability will assure its ability to operate successfully in the sophisticated defense environment which will exist during its operational period. It has been said that the cost of building an effective defense system against the B-70 would be so great to the enemy that it will dramatically reduce the amount of resources which that enemy could devote to its offensive weapons. The B-70's rapid scramble capability, similar to that of an interceptor aircraft, would permit it to take off instantly at the first warning of possible attack, and with its great speed, reach any spot in the world in a very short time. The B-70 will carry external power and other ground servicing equipment in a detachable "pod." This feature will enable it to operate on short notice at many airfields dispersed throughout the country.

- **USES EXISTING RUNWAYS**
- **VASTLY COMPLICATES ENEMY DEFENSE**
- **DETACHABLE ALERT POD carries external power and ground servicing equipment, providing instant starting and allowing short-notice operation from dispersed bases.**

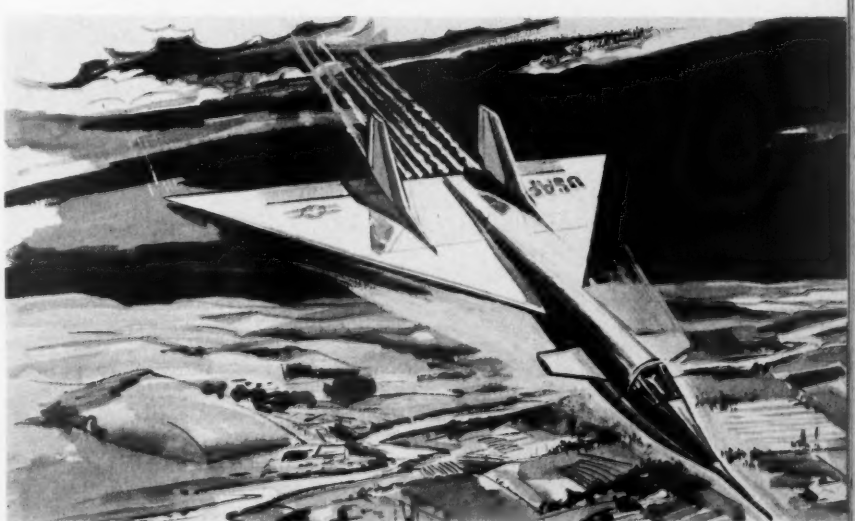


IMPROVED HUMAN FACTORS

The B-70 will provide—for the first time in a high altitude bomber—a "shirt-sleeve" environment for its crew. There will be no need for the crew members to wear protective clothing, oxygen masks, and other safety devices. The crew will be able to separate from the plane safely at extreme heights and speeds, or on the ground at speeds as low as 90 miles per hour, by use of ejection capsules. These capsules will contain survival equipment that will make it possible for the downed crewman to live in any type of terrain or climate on earth. The capsules are designed to float, thus serving as boats for crewmembers forced to bail out over water. During normal operations the crew will be at the maximum degree of comfort and efficiency. This protection for the B-70 crew under all predictable normal and emergency conditions was a requirement set forth in the basic design criteria.

MANNED BOMBER ADVANTAGES

Perhaps the greatest advantage the B-70 will have over the intercontinental missiles in SAC's force is that it can put men—with the reasoning power of the human brain, which cannot be built into a missile—over enemy territory. Unlike a missile, the crew of a B-70 will be able to find and attack hidden and even mobile targets, and attack more than one target. Through modern communications systems, the men in a B-70 will be able to reconnoiter the battle zone and relay an exact up-to-the-minute account of conditions and events back to staff planning agencies. And, also unlike the missiles, the manned B-70 will be launched on short notice under positive control.



Wilderness Rc

Isolation, bitter cold, and Arctic sounded man and his critically ill wife hu skill an

The full blown Alaskan moon looked like a huge silver dollar suspended by invisible strings high above the spruce-dotted tundra on the evening of March 3, 1961. Its direct rays bathed Monahan Flats in a cold, silvery light revealing a tiny cabin in a meandering crook of the Little Nenana River. Spectral patches of ice fog punctuated the hollows of the flats and a 15-knot wind from the northeast gently murmured among the nodding pines.

The scene was idyllic, a typical picture postcard setting, but the situation in the snow-bound cabin was critical. Within, man's oldest struggle—the unending battle against the elements—was being dramatically re-enacted. Twenty-three-year-old Mrs. Roberta Wiebe, ailing the past three days from a severe heart condition, lay on her bed listening for sounds of a rescue party.

Ray Wiebe, 26, held his wife's hand and smiled at her with what he hoped was a look of confidence. But his face was grey with fatigue and his heart a leaden lump of despair. One question constantly plagued him. When would the Air Force rescue party arrive?

Earlier in the day he had doggedly trudged through 30 miles of deep snow, and with Herculean strength born of desperation, reached the small FAA radio station manned by Johnnie James at Summit. There help was requested from the Air Rescue Unit at Eielson AFB. Although dead tired from the 15-hour journey, Wiebe immediately hopped into bush pilot Cliff Springberd's PA-18 and directed him back to an old sled road two miles from his cabin. He and Springberd then landed and put his three-year-old daughter Roblyn aboard the light plane. His wife's condition prevented her from being moved to the clearing. She had to wait for the 'copter pick-up.

Springberd's tricky take-off was a tribute to Alaskan bush pilots. Short on runway and flying speed but long on nerve and know-how, he back-sticked his shuddering PA-18 off the drift-strewn sled road, hedge-hopped a small birch then slowly gained altitude as he headed for Summit with his precious cargo. On arrival, Air Force Flight Surgeon James Whitney treated Roblyn's feet, slightly frostbitten when the fire went out in the cabin. Meanwhile a helicopter piloted by Capt. R. E. Keck was enroute to the cabin via Summit. The chopper

With concern etched on his face, Wiebe watches his wife during flight out of the wilderness.

Dr. (Capt.) Whitney of Eielson AFB attends his patient aboard rescue helicopter in flight.

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Rescue

tic sounded the lonely cabin. Inside, the hopes of a hun skill and courage of an Air Force rescue crew.

by Major BOB FALKNER

carried digitoxin and digitalis, lifesaving oxygen, and resuscitation equipment for Mrs. Wiebe.

Landing in this rugged area after sunset was dangerous. But Wiebe, busily stirring the fire in his cabin to hide his anxiety, prayed they'd attempt the night landing despite the risk. Tomorrow might be too late. At least, he thought, Roberta had heat now.

His wife stared at the rustic slant roof, her thoughts racing back to June. Then she, Ray and Roblyn had enjoyed moving into their new cabin, nestled in this lovely verdant wilderness. They had hunted, fished, and trapped. It was difficult for her to believe that these once friendly surroundings had suddenly become ominous and frightening . . . coldly beautiful but undeniably deadly!

Silently she thanked God for giving her husband the strength and courage to return to her and for giving Cliff Springberd the consummate skill to fly their daughter to safety.

While her husband was making the 15-hour trek for help, she had learned the true meaning of despair. The hours had ticked by slowly as the low-riding Alaskan sun traced its brief daylight arc across the sky.

Her ears had strained painfully and futilely for the sounds of help—even as they did now.

The gut-tightening chill of the Alaskan night now settled down hard upon the man and his wife whose spirits dropped with the mercury. Outside, the ominous stillness was broken only by the whispering trees and the infrequent footpad of a four-footed predator.

Barely perceptible at first, but growing louder came an incongruous "blip-blip." It was a sound of security, of salvation. It was the Eielson-based H-21 helicopter, piloted by Captain Keck. With him were copilot 1st Lt. A. E. Dietz, Crew Chief SSgt. Foster Fort, Captain Whitney, and the vitally needed medical equipment.

A brief aerial reconnaissance of the area by the crew revealed that the cabin was fringed with tall, pointed "spruce spears." The slim, sharp lances reached menacingly skyward like king-sized porcupine quills, poised and ready to impale their thin-skinned bird.

Despite the dangerous terrain features, a strong cross-wind and semi-darkness, the pilot skillfully set the "animated palm tree" down on the frozen river without a scratch, just 15-yards from the cabin.

Mrs. Wiebe was taken aboard, treated, and then flown to Fairbanks International Airport with her husband. From there she was transported by waiting ambulance to Fairkbanks' St. Joseph Hospital where she responded favorably to treatment.

To Ray Wiebe, his simple but most meaningful "thank you" to the Air Force seemed inadequate. But Captain Keck, who understood, responded with another understatement, "We just did our job."

The call for help was relayed by radio from the FAA radio site where Johnny James was on duty.

At Fairbanks airport the stricken woman was soon transferred to waiting ambulance on flightline.

The MIGHTY MACE

by Dr. JAMES A. BELL
Manager, "Mace" Program, AC Spark Plug
The Electronics Division of General Motors

The "Mace" missile, inertially guided all the way, can skirt mountains and hills to slip under possible enemy radar as it streaks accurately toward the target.

ONE OF THE MOST VERSATILE WEAPON SYSTEMS in the Air Force missile arsenal is the *Mace* TM-76B.

While the more glamorous ballistic missiles may capture the attention of the public, this conventional cigar-shaped air breather with wings must attain greater accuracy, meet stiffer reliability requirements, and operate in flight longer than any of its sleek, streamlined, spectacular ballistic brothers.

Mace is a tactical missile, the only medium-range tactical missile the Air Force has.

With the addition of AChiever inertial guidance to the Martin-built weapon system it became self-contained, which means it is independent of assistance from the ground, and cannot be jammed. Target information is programmed into the system quickly and easily. All the missile needs to know is where it is at the time of launch, the location of the target, and it is ready to go.

What does this mean to the squadron commander? He knows with certainty and confidence that he has a fast reaction weapon system with an all-weather and low-level capability.

He knows also, once the *Mace* is fired, it cannot be jammed by external signals, it cannot be detected by radio devices, it cannot be confused by the changing nature of a homing signal, and it is unaffected by contours in the terrain.

No claims have ever been made that the *Mace* is the "ultimate weapon," but it can be stated that it is an "optimum weapon" from the view of accuracy and cost.

Mace incorporates many compromises aimed at keeping cost down, while retaining high reliability and maximum assurance that it will get the job done. As far as accuracy is concerned, it more than meets the needs while carrying a high-yield warhead. When one speaks of limited wars, *Mace* is definitely a trump card, and versatility is its greatest asset. With its flight plan programmed into the guidance system, *Mace* can fly high over friendly territory conserving fuel, and then hug the deck, snaking its way to the target, avoiding radar detection as well as attack from fighter aircraft.

The bird is under continuous guidance from launch to termination. This can be as long as two hours, depending, of course, on the distance covered.

Continuous operation of the inertial guidance system presented difficult design and reliability requirements to compensate for gyro drift under these conditions.

When one compares the operating time of an inertial system for a ballistic missile—measured in minutes or less—to the long-term operational requirements of the *Mace* guidance system, these problems become obvious. However, successful test flights have shown that these problems have been overcome.

The *Mace* IGS contains a reference platform which is aligned at takeoff to indicate what direction the missile must go. Its position is fixed, peculiar to a single point on the earth's surface, and it maintains that position by virtue of its gyroscopic signals and support electronics. This provides a starting point and the direction to go.

AChiever guidance also contains two devices to measure accelerations. One measures acceleration toward the target and, with the aid of a computer, determines how far the missile has to go to reach the target. Deviations to the left or right of a great circle from launch point to target are sensed by the second accelerometer. Using computer information, the missile is guided back on course. A refined barometric altimeter gives altitude.

Known deviations can be placed into the guidance system, enabling the missile to fly several program turns, altitude variations, left or right, high or low, or a combination of all these factors.

The target information is pre-programmed and set into the guidance system from the ground support equipment. This equipment is also used to align the system prior to launch.

The logistics aspects concerned with the *Mace* are again some of its greatest attributes. It is a known fact logistics is a huge cost factor in any military undertaking. The more men needed, the more dollars have to be spent for training and support.

But with *Mace* this problem is reduced because Air Force personnel are already geared to handle this type of craft. It has virtually a standard air frame and engine. Long production runs on the same type of equipment have reduced costs.

Mace uses existing fuels and parts, uses known and perfected handling techniques. And Air Force operational crews are available.

TIPS ON TECHNOLOGY

Ten Times Hotter

Rocketdyne is developing a liquid-hydrogen-cooled rocket nozzle for use in tests of *Kiwi B*, the nuclear-powered rocket test engines being built for AEC, NASA, and Air Force. The nozzle will be constructed of Inconel X, the same nickel alloy used in the fuselage of the North American-built X-15. Rocketdyne says that it will handle heat loads ten times greater than the nozzles in conventional chemical rocket engines. The company has also built and operated an axial flow turbopump adapted from the *Atlas* to circulate the liquid hydrogen. The turbine power control valve will act as a throttling device.

Space Pounds That Count

Martin Company geophysicists claim that space ship shell design and the arrangement of equipment inside the shell will lop thousands of pounds off an *Apollo* vehicle. A six-month study and millions of man-hours of design and computer work produced the opinion that a trajectory avoiding the concentrated Van Allen belt in a space cabin shielded largely by equipment around the shell would greatly reduce the heavy shielding requirements. An interesting sidelight of Martin's feasibility study of *Apollo* is that women adapt to "space driving" quicker than men.

For Heavy Readers

The USAF Office of Aerospace Research and the National Science Foundation (NSF) are sponsoring a monthly subject index of the world's literature on aerospace technology being prepared by the Institute of the Aerospace Sciences (IAS). By year's end when the index will be issued in book form, more than 10,000 scientific-research documents will be listed with brief descriptions of topics covered in each document. An NSF grant will help pay for the first year's index to International Aerospace Abstracts. Thereafter, sale of indexes to subscribers will make the service self-sustaining. Listed publications will be available on a free loan basis to members, government agencies, and colleges.

New Space Material

A General Electric scientist reports that preliminary work has started on an attempt to combine aluminum with tiny whiskers of pure sapphire to produce a composite material expected to be three or four times stronger at white heat than any other known high-strength alloy. A square inch of the material could withstand a tension of several hundred thousand pounds, he said.

Not Even Wheels

Boeing Airplane Company has announced a subcontract with Bendix for a retractable nose gear for the *Dyna-Soar* that looks like a housewife's upside-down dishpan. Reentry heating in the manned space glider will rule out conventional wheels and lubricated bearings. The *Dyna-Soar* main gear will be still more unusual. Goodyear Tire and Rubber has a subcontract to design landing skids that will look like wire brushes. These brush-like skids will provide braking surfaces for the space glider after touchdown.

WINGS OF THE LI

by TSgt. HAROLD L. CRAVEN
Allied Forces Southern Europe

VAPOR TRAILS over southern Europe and Turkey are comforting for residents of that area, even though they cannot always be certain of the identity of the aircraft making them.

"Their nationality is unimportant as long as they are not from behind the iron curtain," an Italian fisherman explained recently. He said he was positive the condensation trails passing overhead were not made by Soviet planes.

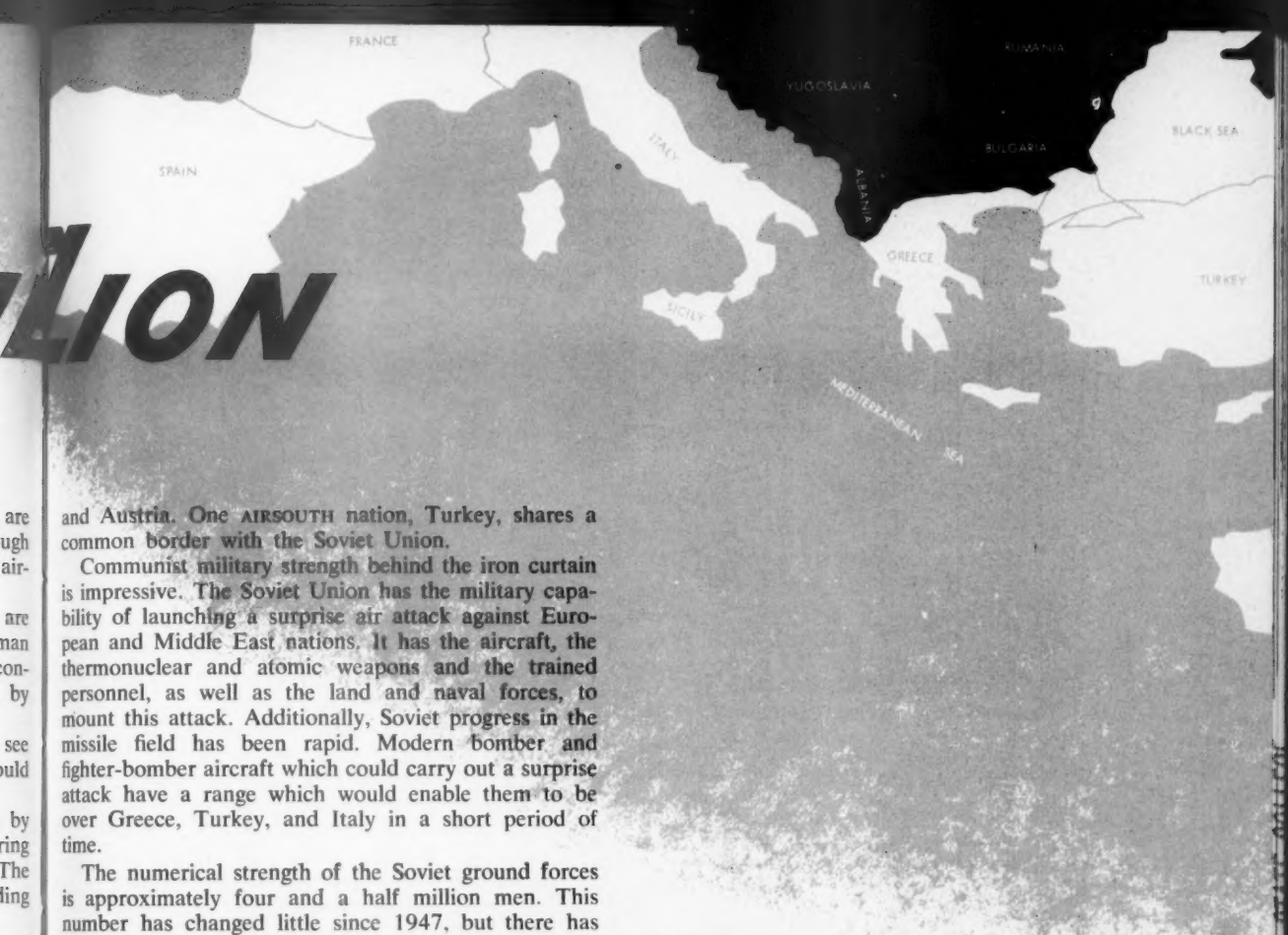
"If they were," he reasoned, "we would also see other vapor trails going to intercept them. Those would be made by the airplanes of NATO."

The vapor trails he saw might have been made by Italian fighter-bombers or by military aircraft bearing Greek, Turkish, British, or American insignia. The forces of these five nations share the task of defending NATO's Southern Region against aerial attack.

Allied Air Forces Southern Europe (AIRSOUTH) is an integral part of Allied Forces Southern Europe (AFSOUTH), the international land, sea, and air organization now standing watch over NATO's southern flank. Each of the nations providing forces for AIRSOUTH has, in our time, had its differences with one or more of the others. Nevertheless, airmen of these countries have found it possible to work together harmoniously and efficiently to help prevent Communist aggression.

The symbol of AIRSOUTH, like that of its parent organization AFSOUTH, is a winged Lion of Saint Mark superimposed on a shield. The design, old and honored in the Mediterranean area, is associated with the 16th Century Republic of Venice, whose patron saint was the Apostle Mark. The winged lion holds a sword and an open Book of Peace. In the AFSOUTH version the shield is carmine and the figures are golden yellow. AIRSOUTH's insignia has silver figures on a blue shield and a pair of silver wings have been added beneath the lion.

AIRSOUTH has been called "The Wings of the Lion." As such it operates with its land and sea counterparts to protect a 1,700-mile frontier stretching from Mount Ararat on Turkey's eastern border, across northern Turkey and Greece to Resia Pass in northern Italy. Beyond this line lies a network of Soviet satellites, including Bulgaria, Albania, Romania, Hungary, and Czechoslovakia, and two neutral nations, Yugoslavia



and Austria. One AIRSOUTH nation, Turkey, shares a common border with the Soviet Union.

Communist military strength behind the iron curtain is impressive. The Soviet Union has the military capability of launching a surprise air attack against European and Middle East nations. It has the aircraft, the thermonuclear and atomic weapons and the trained personnel, as well as the land and naval forces, to mount this attack. Additionally, Soviet progress in the missile field has been rapid. Modern bomber and fighter-bomber aircraft which could carry out a surprise attack have a range which would enable them to be over Greece, Turkey, and Italy in a short period of time.

The numerical strength of the Soviet ground forces is approximately four and a half million men. This number has changed little since 1947, but there has been an increase in the mechanization of these forces and in the modernization of their equipment. The strength of Soviet Bloc ground forces one month after mobilization has been estimated at 400 front-line divisions. If the Communists were to launch an attack against Europe it is probable that ground troops would be ordered to invade and occupy the southern European countries in order to neutralize their armed forces and military production capabilities.

Since World War II the Soviet Navy has become the second largest in the world. Its two principal threats are its large submarine force and its mine-laying capabilities. Nearly every Soviet ship and a great many Soviet airplanes are equipped for mine laying. Undoubtedly the securing of the Turkish straits, in order to permit the Black Sea fleet access to the Mediterranean, would be a primary Soviet objective. Combined use of land, sea, and air forces would be necessary in order to defend successfully these straits.

Primary Objective

The first objective in NATO's Southern Region would logically be the elimination of Allied nuclear delivery capabilities by assaults on our known bases.

In order to guard against a surprise attack, NATO's land, sea, and air forces in these countries are kept honed to a sharp fighting edge by means of frequent and realistic training exercises.

Jet formations over Turkey, Greece, Italy, and adjacent areas of the Mediterranean attest to the readiness of five nations sharing the task of defending NATO's Southern Region against aerial attack.

When NATO was organized in 1949, air defense was considered a responsibility of individual nations rather than a NATO responsibility. Rapid progress in air weapons technology, however, on both sides of the iron curtain, made it apparent that a more closely-knit system was needed.

As a result of this realization a small group of Italian and American officers and airmen met in Florence, Italy, in August 1951, under the command of Lt. Gen. David M. Schlatter, USAF. General Schlatter's orders signed by General of the Army Dwight D. Eisenhower, Supreme Allied Commander, Europe, were to prepare to conduct the air portion of the defense of southern Europe. Later that month the Republic of Italy put her 56th Tactical Air Force, commanded by Maj. Gen. Giuseppe Casero, under the operational control of General Schlatter. Similar Allied air organizations were formed in central and northern Europe.

Italian, American, and French personnel were assigned the task of nursing the infant southern Europe organization through a difficult childhood. The need for new airfields, extensive communications networks, and replacements for obsolescent aircraft and equipment were major problems, and a training program had to be launched to provide the skills to operate new weapon systems as they became available. When Greece and Turkey joined NATO in February 1952 the growing pains became more pronounced as AIRSOUTH's responsibilities were extended to a point southeast of Moscow.

Rapid Growth

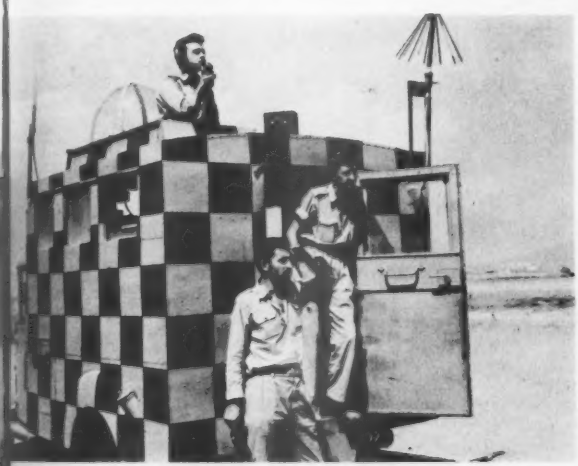
In 1953 AIRSOUTH headquarters was moved from Florence to Naples, its present location. The international organization has since become a formidable force, capable of defending its territory and inflicting tremendous retaliatory destruction. Located in each of the three nations in the Southern Region is a balanced force of atomic strike, conventional fighter-bomber, reconnaissance, air defense, and transport aircraft, plus surface-to-air missiles of various types.

Lt. Gen. Ralph P. Swofford, Jr., USAF, is Commander AIRSOUTH. Maj. Gen. Cesare DePorto, Italian Air Force, is Deputy Commander. COMAIRSOUTH is directly responsible to the Commander in Chief Allied Forces Southern Europe (CINCSOUTH), Adm. Charles R. Brown, USN, whose headquarters is also at Naples.

Subordinate to AIRSOUTH are the Fifth Allied Tactical Air Force, headquartered at Vicenza, Italy, and the Sixth Allied Tactical Air Force, headquartered at Izmir, Turkey. These organizations have combat ready

Lt. Gen. Ralph P. Swofford, Jr., Commander Allied Air Forces Southern Europe (right), and Air Marshal Sir Walter Cheshire, Deputy Commander in Chief Allied Forces Mediterranean, during official visit to Malta by General Swofford. Malta, home base for Britain's 39th Photo Recon Sq, plays an important role in defense of NATO's Southern Region.

Pilots of the Royal Hellenic Air Force scramble in training mission. Greeks take pride in reaction time.



Greek air traffic controllers operate from special mobile unit during a joint NATO training exercise.

squadrons at numerous bases in Italy, Greece, and Turkey. Supplementing these squadrons are rotational squadrons from USAF's Tactical Air Command and a Royal Air Force photo reconnaissance squadron based on Malta.

The five nations providing air forces have military personnel assigned to Headquarters AIRSOUTH at Naples. France, which has military forces assigned to NATO outside the southern region, also has representation, in AIRSOUTH's Directorate of Air Defense.

In peacetime, AIRSOUTH's task is to assure that the weapon systems made available are maintained continuously at their highest practical level of combat readiness. This includes standardizing training and operating procedures, coordinating exchange of information and use of facilities, and resolving problems of personnel, equipment, tactics, and techniques.

The international character of the headquarters begins at the top level and continues throughout all operating levels of each directorate and division. The current issue of the AIRSOUTH telephone chart shows Maj. Gen. William L. Kennedy, USAF, as Chief of Staff; Brig. Gen. Demetrious Voutsinas, Royal Hellenic Air Force, as Deputy Chief of Staff, Plans and Operations; and Col. Nurettin Ozerdem, Turkish Air Force, as Deputy Chief of Staff, Logistics. American officers have the top spots in Administration, Air Defense, Communications, Operations, and Installations. Plans division is headed by a Turkish officer; Materiel and Programs divisions are headed by Greek officers; and Italian officers hold the top posts in the Intelligence and Personnel divisions.

Functional subdivisions of the various directorates and divisions are no less international, with officers, airmen, and civilians of several nationalities often working together on common projects.

While Headquarters AIRSOUTH personnel are primarily members of the air forces of their respective countries, there are exceptions. The United States also has Army, Navy, and Marine Corps personnel assigned, and British representation includes both the Royal Air Force and the Royal Army. The international and interservice character of the headquarters is immediately apparent upon entering the headquarters building, for the sentries on duty are always an American air policeman and a member of the Italian Carabinieri, the elite

national police force whose members are also trained infantrymen.

The varied backgrounds of headquarters personnel result in some problems, most of which result from language difficulties. The two principal languages used in the headquarters are Italian, the language of the host country, and English, which is one of NATO's two official languages (the other is French). Courses in Italian, French, and English are taught on the post and all personnel, regardless of rank or job assignment, are eligible to attend. The international character of the headquarters has advantages which outweigh the disadvantages, for staff personnel have a wide range of diversified experience upon which to base their decisions.

Italian Air Force personnel point with pride to the fact that theirs has been an air-minded nation since the invention of the airplane. Italy claims to be the first world power to make use of airplanes in warfare. In August 1911 aircraft were used by the Italians in military maneuvers, the first instance of air-ground cooperation which would eventually play an all-important role in military doctrine. In the same year Italy employed aircraft for reconnaissance and bomber missions in a war in Libya. As an example of her early concentration on the science of flying, Italian aviators held 28 of the 35 world records for long-distance flying in 1933, the year Italo Balbo led a spectacular mass flight of warplanes from Italy to the United States.

The rebuilding of the Italian air force after World War II is a story of heroic accomplishment. Little remained of the wartime force except a hard core of experienced aviators. Today the IAF has 60,000 men and hundreds of jet-powered interceptors and fighter-bombers.

A substantial contribution to NATO is the Italian-built Fiat G-91R lightweight strike reconnaissance aircraft, a high-performance jet-propelled weapon system capable of operating from grass-covered fields as well

Italian Air Force pilot tosses his hat in salute as a Fiat G-91 demonstrates takeoff capability from grass strip. The G-91, designed specially for use by NATO forces, is one of several types of front-line aircraft used by AIRSOUTH pilots.

Turkish NCO demonstrates technique of smoking traditional waterpipe for American airman during off-duty visit to coffee house at Izmir.

as modern runways. This was the first major item of equipment built especially for use by NATO forces.

Italy's NATO-committed 56th Tactical Air Force, however, is primarily equipped with American-designed fighter-bomber aircraft.

During the past decade the Greek air force has undergone a remarkable transformation in which obsolete propeller-driven machines have been replaced by jets. New airfields designed for modern aircraft have been built and up-to-date communications facilities and warning and control systems have come into being.

American aid through the U. S. mission in Greece, in training, technical advice, and materiel, played an important part in this development. A large number of Royal Hellenic Air Force personnel have been trained in American schools.

RHAF fighting squadrons are equipped with F-84 and F-86 aircraft and *Nike*-type surface-to-air missiles.

The entire Greek air force, which is a tactical rather than a strategic element, is assigned to AIRSOUTH. The 28th Tactical Air Force, which includes most of the RHAF squadrons, is under operational control of the Sixth Allied Tactical Air Force headquartered at Izmir, Turkey.

When Turkey entered the NATO alliance in 1952 she committed all three of her newly organized tactical air forces to the cause of western freedom. Air coverage of this largest southern-region NATO nation is of vital importance, inasmuch as it borders on the Soviet Union. Two of these three tactical air forces are trained for four different types of mission, specifically—interdiction, support of ground troops, photo reconnaissance, and air defense. The third, directed from Ankara, has the dual responsibility of operating a 24-hour warning network and carrying out counter-air operations.

The Turkish Air Force fighting squadrons are equipped with F-84, F-86, and F-100 type aircraft. New pilots assigned to these organizations are Turkish Air Force Academy graduates who have undergone rigorous ground and flight training. Student pilots must meet all the requirements for assignment to duty with operational jet squadrons in order to earn their wings.

In the event of a surprise attack from behind the iron curtain, the combined capabilities of the air organizations now under AIRSOUTH operational control, plus national forces not presently assigned to AIRSOUTH, would go into action quickly. Coordination of land, sea, and air defensive and retaliatory capabilities would make such an attack costly indeed. While the enemy would have the initial advantages of selection of time, altitudes, wind and weather conditions, avenues of approach, and targets, he would be risking vast destruction, within his own borders.

The degree of military cooperation that has been achieved in the Southern Region in the first 10 years of AIRSOUTH's existence, despite differences that exist between individual nations on the political level, is largely a matter of mutual recognition of a common danger. The common danger, however, is more than military. It is also economic and political. Efforts toward greater understanding and cooperation in all these fields should materially reduce the Soviet Union's chance of achieving their objectives.

Great progress in these areas characterized the first decade of AIRSOUTH's existence. Greater progress can be expected in the future.

On a larger scale the story of AIRSOUTH is the story of its parent organization, NATO, which was recently described by President Kennedy as "remarkable among all the alliances of history in its combination of political, military, economic, and even psychological components."

Of the accomplishments of the Atlantic alliance the President told the NATO Military Council on April 10, 1961:

"NATO has kept the peace in Europe and the Atlantic through 12 dangerous years, and in that time our community has grown in strength and well being. This is no small accomplishment. I offer to you, and through you to all of NATO's armed forces, the thanks of the people and Government of the United States. Let us go together in this high task of guarding a free community's peace."

Rod and the Reels

When the USAF's most senior active-duty pilot renewed his friendship with a star of silent films, they naturally talked about *Wings*.

Actor Dick Arlen (left) and pilot "Rod" Rogers in 19

by SSgt. DONALD E. MARTIN, Hq TUSLOG

"They ought to have horns on airplanes!" lamented a Connecticut woman motorist in early 1926.

"There I was on the road when I heard a funny noise and looked up just in time to see this plane shooting right at me. Fortunately it missed but I think he should have blown his horn!"

At the controls of the disabled plane as it rushed headlong to destruction in a nearby clump of trees was Army Air Service Lt. Elmer J. Rogers, Jr.

Neither pilot nor mechanic was hurt, but the plane was a total wreck.

And while the crash was by no means intentional—caused by a broken fuel pump rod—it gained the young lieutenant another valuable crash-landing experience and a new nickname—"Rod."

Now a USAF lieutenant general, he had occasion to remember those early flying days while renewing a friendship in Ankara, Turkey, with an old movie friend of the silent screen, Charles "Buddy" Rogers.

This chance meeting was the first time he and Buddy (no relation) had met since the general did the backup flying for him and Dick Arlen in the 1926 filming of one of the all-time silent greats, *Wings*.

The Famous Players-Laskey production was Hollywood's first try at filming aerial combat from the planes themselves, and co-starred the "It Girl," Clara Bow, together with providing the first bit part for a young unknown called Gary Cooper.

"Rod" Rogers, as he was known from his Connecticut crash, was on loan from the Air Service, and did his movie flying crouched deep in the rear cockpit of a bi-winged VE-7 Chance-Vought aircraft—ducking the cameras mounted fore and aft as they recorded the action of the star in the front seat.

"I got my first taste of blind flying then," the general recalls, "and it wasn't too bad until we were hit and turned on the fake smoke. . . . I usually got most of it in the face back in my cubbyhole!"

Director William Wellman had chosen the lieutenant as exclusive pilot for the stars, and when not performing as a "hidden pilot" he flew Number 2 plane in the "Dawn Patrol." Alongside him were such pilots as young Hoyt Vandenberg, Earl Partridge, and Clarence Irvine.

Real Superpicture

The movie itself was a true superpicture of its day, and drew thousands of spectators to the reenacted filming of the 1918 Battle of St. Mihiel.

Some five thousand soldiers of the Army's Second Division, and 45 airplanes piloted by Air Service aviators, recalled for cameras the U. S. First Army's baptism of fire in WW I action at St. Mihiel.

As a reporter at the battle scene outside San Antonio, Texas, described the filming:

"From over the western slopes suddenly hummed the waspish *Fokker* flight. On gray of fuselage and wings showed the once-menacing black cross, insignia of the German air force. Over the valley they flashed—and at once the "battle" was on as Spads, De Havilands, and bombers took to the air.

"Off to the south, where more ships circled and still more, came a terrific detonation and there rose a monstrous cloud of yellow. One hundred pounds of dynamite in that charge! Another. A greenish blast. Hundreds of such explosions—the red flags began to wigwag from the summit of the tower.

"A change of tactics: lower and lower dived the pursuit planes, tearing metallically, ominously, just over the heads of the hordes of watchers from the heights. Camouflaged, dipping, zooming, and diving again under guidance of the best pilots from San Antonio flying fields, they made a picture that continued for an hour!"

Aside from his numerous flying hours with a star-precious cargo, Lieutenant Rogers got a chance to appear on film himself. He played a short part showing a close-up of an American pilot wounded and bleeding profusely from the face.

"We did it with a tube and rubber bulb," he said. "The bulb was filled with false blood and the tube pushed up inside my flying helmet. When I squeezed it the blood really flew.

"Another was with an eggshell filled with the same fake blood. Dick Arlen held it in his hand and slapped it to his shoulder with the camera on close-up, and believe me it really looked like he was hit!"

Dick Arlen is "Shot Down"

The movie's highlight came when the script called for Dick Arlen to be shot down. "Rod," as usual, was tagged for the job.

Mixing it up with a German Ace high above the battle, his plane was "hit"—rolled over and with smoke and fire streaming spun "out of control" down to the deck, screamed across the battlefield and pulled up over a line of trees to dip down out of sight into a river bed.

Here the film was cut and later a similar plane mounted on cliffside rails, high above the river, was revved up and cut loose to soar out and crash down into the river.

Dick Arlen hastily swam to the wreckage and bobbed up on the other side, swimming to safety as cameras covered the entire sequence.

On another occasion the lieutenant was flying "Buddy" Rogers as he shot down an observation balloon in true Frank Luke fashion.

Making a machine-gun pass at the balloon and then pulling up with cameras grinding over their shoulders, the scene was recorded as the "Germans" parachuted from their gondola and the balloon blew up by remote control from the ground.

These and other events "Buddy" and the general remembered in Ankara as they filled in the 35-year interval since the filming of *Wings*.

Buddy himself had gone on to further stage and movie stardom, married Mary Pickford, served a stint as a ferry and test pilot for the Navy in WW II, and is today active in motion picture and television production.

His stopover in Turkey was at the head of an all-star USO show he does each year as a patriotic gesture. His 1961 troupe played military bases in Africa, France, Italy, Greece, and Turkey.

A prophetic look at the career in store for Lieutenant Rogers was offered by a Massachusetts newspaper in 1926 which described his ambition as "up among the stars, a-sailing 'round the moon."

While moon travel is still something for the future, the young lieutenant certainly attained his "among the stars" prophecy; he now wears three on each shoulder.

The same article noted that the lieutenant had rubbed elbows with distinguished men of foreign nations who were training to be pilots in his same class.

History has faded for these foreign fliers, but the spotlight turned brightly on other classmates such as Charles Lindbergh and Otto Weyland.

The class itself gained a certain degree of fame when it became the first in history to complete its entire training without a single fatality.

This record was almost marred, however, by a mid-air collision from which parachuted the slim figure of Cadet Charles Lindbergh.

The no-fatality record was truly a miracle at that time, and it was practically a miracle that the cadets could win their wings at all in face of the terrific elimination rate. Lieutenant Rogers was the single selectee from 150 applicants in his area that year, and eventually became one of the final 18 graduates from an original class of 132.

While Buddy Rogers was becoming a Navy flier and test pilot—remembering the days of *Wings*—General Rogers was repaying his government for its years of training as he became a combat flier and top-level strategist in the Mediterranean Theater of Operations.

During a 1944 bombing mission over Italy his B-17 was shot down and he ditched off the coast, drifting wounded in a rubber boat for eight hours until picked up. The wound soon healed, and after completing his mission quota and earning successive promotions he became Director of Operations of the Mediterranean Allied Strategic Air Forces.

Still at the top after the war, the general attended high-level schools and in 1950 was appointed the Air Force member of the Joint Strategic Survey Committee —sometimes known as the "Little Joint Chiefs of Staff."

From the JSSC he went to Japan as Chief of Staff of the Far East Command and the United Nations Command, under Generals Taylor and Lemnitzer. This was the first time an Air Force officer had filled the important position.

His career is soon to top 40 years' total service, including three years as USAF Inspector General, and he is presently Chairman of the Permanent Military Deputies Group of the Central Treaty Organizations (CENTO).

Records show there is no longer any Air Force pilot on active duty who entered flying school before March of 1924. Accordingly, General Rogers can be considered the senior pilot of the entire Air Force today as he stands at the head of the remaining Air Service aviators.

His flying career has spanned the era between early powered flight and the true jet age. And topping it off in typical style, he has today flown the TF-104, F-102, F-101, KC-135, DC-8, Lockheed *Jetstar*, and is presently current in the twin-jet B-57 *Night Intruder* . . . a far cry from the Spads, De Havilands, and Martins of Kelly Field days and the epic filming of *Wings*.

es "Buddy" Rogers,
s star of the silent screen,
Lt. Gen. E. J. Rogers in Ankara, Turkey.

variety of subjects and do it well. However, I would like to request more extensive sports coverage in future issues if this is possible.

A1C R. A. Fox
APO 323, San Francisco, Calif.

● *Timely sports coverage is virtually impossible for* THE AIRMAN *because we work two to three months ahead. Further, because of their limited local interest, we do not cover base-level sports. To date, we have confined ourselves to an annual Air Force Academy football prospects story and other areas which offer no time element but have USAF-wide interest, such as participation in the Olympic Games. The 1961 Falcon football story will appear next month.*

★ ★ ★

Rebuttal

Sir: In your May issue, Airman Rudd expressed concern over the apparent weakness of airmen just out of basic and tech schools in the areas of uniform wear, mission and organization, and customs and courtesies. We at Lackland admit that an eight-week split-basic training program is inadequate. Assistance of supervisory personnel throughout USAF is necessary in order to complete the training job. These people should take it upon themselves to conduct an on-the-spot program, stressing corrections and setting a good example. We can lay the groundwork. The rest is up to Air Force older hands.

Lt. Gilbert S. Sanders
Lackland AFB, Tex.

★ ★ ★

Apologies

Sir: I urgently request you print a correct version of my letter published in your May issue, headed *Fighter Pilot Fights Back*. Your staff changed a critical word in the last sentence of the third paragraph and destroyed its entire meaning. I said, "You can *even* be a fighter pilot in a B-47." You made it read "never." I have a good many friends in the B-47 program. Some are larger and stronger than I am. Many outrank me. Some may sit on promotion boards. I have no desire to be a target for the entire B-47 force. Do me the kindness of squaring this matter away.

Capt. Frank G. Bell
Keesler AFB, Miss.

● *Sorry, Captain Bell, it was a typo. Hold your fire, B-47 types.*

Sir: I enjoy reading your excellent magazine, but I think you made a mistake in the May issue. On page 13, you have the aircraft in the photo at the upper right of the page identified as F-86s. I think you will find they are F-84s if you look closely.

A2C Bernard Lacoy, Jr.
Beale AFB, Calif.

● *Airman Lacoy and the literally dozens of others who wrote are, of course, correct. The aircraft are Republic F-84s.*

★ ★ ★

Comments

Sir: With reference to your article on page 48 of the May issue, the P-38 exceeded 400 m.p.h. before the P-47 ever got off the ground. The P-51 was also faster. No offense to the "Jug" is meant.

Maj. Paul K. Jones
Mt. Lemmon AFS, Ariz.

Sir: I have just completed your May article on crash boats and would like to offer some additional information. The R-37A 1270 rescue boat was transferred from Patrick AFB to Tyndall AFB, Fla., in December 1958. I was in the convoy of three boats which included the 1272 and 1280 as well. In 1959, all three were converted to missile recovery and had corresponding rigs mounted on their sterns. I certainly enjoyed reading about an old friend, and I would like to commend you people on an excellent magazine.

SSgt. John E. Hopkins
Clinton-Sherman AFB, Okla.

★ ★ ★

Point of View

Sir: Would you please explain how WW II can be referred to as "halcyon days"? In the event you didn't know, the word means tranquil, happy or unruffled—hardly descriptive of wartime.

SSgt. James T. Lowery
Shaw AFB, S. C.

● *The use of halcyon was intentional and meant as irony. The constant tension of the cold war and continued outbreak of fighting in varied parts of the world often make WW II days look halcyon in comparison with the current world situation. At least then there was no doubt of what tomorrow would bring.*

★ ★ ★

Medal of Honor

Sir: In your Medal of Honor article on Sergeant Erwin (*Fire Over Koriyama*, May '61) you indicate that he was the last USAF member to receive the Medal of Honor. I'm sure this is not correct.

TSgt. Marvin C. Hodges
Malmstrom AFB, Mont.

● *Sergeant Hodges apparently misread the sentence to which he refers. The statement was that Sergeant Erwin was the last USAF man to attain this honor and survive the ordeal.*

Sir: The illustration which accompanied *Fire Over Koriyama* appears to be in error. The citation said Sergeant Erwin threw the bomb out the copilot's window. The picture has him throwing it out the pilot's side of the aircraft.

A2C Jack D. Mullenger
Turner AFB, Ga.

● *This is one of those things you discover after it is too late to make a correction. The citation was correct. Our apologies to all who noted the error.*

Sir: I enjoyed Sergeant Bamford's account of the "Red" Erwin Medal of Honor exploit. I was his aircraft commander so I can fully appreciate his heroism. However, to keep the record straight, our organization was the 29th Bombardment Group, 52nd Bomb Squadron—not the 52nd Bombardment Group. Also, we trained and deployed from Kansas, not Texas.

Col. G. A. Simeral
Malmstrom AFB, Mont.

Sir: According to my information, Sergeant Erwin was a member of the 52nd Bomb Squadron, 29th Bomb Group, 10th Bomber Command.

E. C. Dreyer
Garden City, N. Y.

● *Our thanks to Colonel Simeral and reader Dreyer for setting the record straight.*

AIRMAN'S WORLD

CONTINUING SUCCESS of the X-15 program has brought smiles to the face of USAF Maj. Robert M. White, one of the pioneers in a new airman's world. Most recent honor bestowed in recognition of his efforts is the University Medal from New York University, White's *alma mater*, for his part in the program. Meanwhile, the X-15 continues to reach new heights and speeds in its assault upon space.

RESTING ATOP ONE OF NATURE'S RUNWAYS, this KC-135 recently became the first jet of its type to land on sea ice. The 80-ton monster was flown from Griffiss AFB, N. Y., and landed on ice nearly four feet thick in North Star Bay, near Thule. *Project Iceway* is being conducted to determine the feasibility of using such surfaces, in their natural state, for USAF operations.

Bits of Blue

. . . McCoy AFB, Fla., will soon be home for two new organizations. The 538th Air Force Band will move there from Hunter AFB, Ga., during the current month. Next month the 347th Bomb Squadron (Heavy) will also transfer to the Florida base from Westover AFB, Mass.

. . . The Air Force Museum, Wright-Patterson AFB, Ohio, hosted a unique "reunion" in June. Guests during the four-day conclave were several airmen who distinguished themselves in air units during WW I.

. . . USAF recently presented "The City of Altus" to that Oklahoma community. The B-47 was the first to land at Altus AFB in April 1953. The city fathers will convert it into a public memorial.

. . . The X-15 is about to be immortalized—on commercial film. Producer of the feature-length movie is Tony Lazzarino, a 32-year-old "unknown." Department of Defense and NASA have approved the story and are cooperating in the production.

. . . USAF's School of Aviation Medicine is now a name in history. Its title was recently changed to the School of Aerospace Medicine —first such change since November 1922. Previous to that date it had been the Air Service Medical Research Laboratory.

. . . The Goodyear Tire and Rubber Co. was recently awarded a quarter-million dollar contract for production of specially-designed tires for the supersonic Air Force B-58 bomber.

. . . Maj. Gen. C. F. Necrason has been awarded the Bene Merenti Papal Medal, one of the highest awards available to Catholic laymen, for his "exceptional accomplishments and services" on behalf of the church.

Loans Repaid

VA officials have announced that more than a third of all GI Bill loans issued since the program began in June 1944, have been repaid in full.

These completed payments represent liquidation of nearly two million separate loans and repayment of nearly $12 billion.

Highest repayment rate has been in the field of business loans where the paid-in-full record is nearly 90 percent. Farm loans have been cleared from the books at the rate of 77.2 percent, and more than 30 percent of all home loans have been liquidated.

Since its inception, the program has sponsored nearly six million loans, totaling well over $50 billion.

Under existing laws, WW II veterans have until July 26, 1962, and Korean veterans until January 31, 1965, to apply for such assistance.

Joint Usage

Cooperative use of long-range radar is resulting in significant savings for both USAF's Air Defense Command and the Federal Aviation Agency.

Such joint usage has been in effect since early in 1957 and, to date, the program has saved more than $15 million in equipment costs alone.

The undertaking was initiated after study by an FAA/ADC Joint Radar Planning Group proved its feasibility. Fifteen units have since been adapted for co-usage and 33 additional radars will join the net by December 1963. Savings average approximately $1 million per unit.

Those currently adapted include FAA radars at Boston, Mass., Miami, Fla., Pittsburgh, Pa., and Seattle, Wash. USAF units at Great Falls, Mont., Hutchinson, Kans., Kansas City, Mo., Omaha, Nebr., Palermo, N. J., San Antonio, Tex., Spokane, Wash., West Mesa, N. Mex., Bedford, Va., Texarkana, Tex., and Perrin, Tex., are also part of the extensive net. Those at Boston, Miami, Pittsburgh, and Seattle also include the Army in the joint utilization program.

Reduced Railroad Rates

Reduced furlough fares for military personnel traveling in uniform and at their own expense have been extended by the nation's railroads to December 31, 1961.

The announcement was made recently by the chairman of the Interterritorial Military Committee as the representative of all railroads in the east, south, and west.

Prior to the extension, reduced fares were scheduled to expire on June 30, 1961. The railroad action means that round-trip reduced fares will be continued at a saving of approximately 1.9 cents per mile.

Dyna-Soar

The most exhaustive wind-tunnel testing in the history of flight is being conducted as part of the *Dyna-Soar* manned space-glider program.

Design and construction of the vehicle presents special problems because the spacecraft will be required to operate from landing speeds through Mach 25.

The *Dyna-Soar* is currently programmed to be rocketed into space by a two-stage *Titan II* missile. Tunnel testing is being conducted on every conceivable combination of glider and booster. Tests are so complex that tunnel time is expected to more than triple that expended on the X-15 program.

Boeing Airplane Co., system contractor for the craft, has gone far afield to utilize tunnel and shock-tube facilities of other cooperating companies and institutions in their no-stone-unturned search. Among those whose equipment has been used are AVCO, General Electric, the Martin Co., Cornell University, University of Washington, Ohio State University, the University of Southern California, Air Force and other government agencies.

Enlisted Personnel

Several of USAF's 39-series regulations are undergoing extensive revision as a result of the excellent success of the retraining program.

Principal among these are AFR 39-4, *Airmen On-the-Job Upgrade Training;* AFR 39-8, *Airmen On-the-Job Retraining;* and AFR 39-9, *USAF School Retraining Programs.* All are currently in distribution.

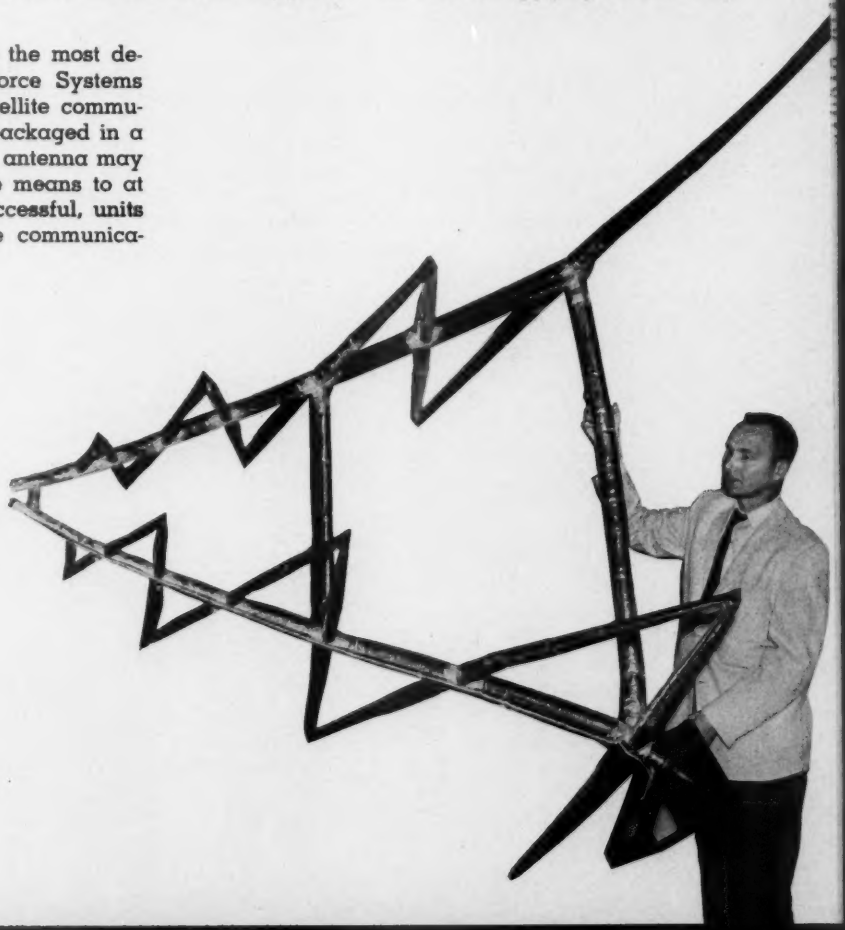
Success of the overall retraining program has triggered the changes and resulted in elimination of directed retraining. In less than four years, USAF's NCO surplus was reduced from more than 25,000 to slightly less than 5,000, which is currently spread over 32 skill areas.

Consequently, directed retraining is now history although the volunteer program will go on. Under the revised volunteer program, resource skill areas have been expanded from 28 to 44 and retraining courses from 38 to 54. For WAF personnel, retraining courses now total five.

The primary aim of both the OJT and school retraining programs has also been shifted from one of reducing overage areas to that of filling job slots in short skill areas.

Details of the new programs and requirements for entry are contained in the regulations cited above. Personnel officers may be contacted for assistance in applying for retraining.

AN ANTENNA EXPLOSION might be the most descriptive phrase for the latest Air Force Systems Command investigations of future satellite communications systems. Capable of being packaged in a container the size of a box-camera, the antenna may be erected by mechanical or pressure means to at least 100 times its deflated size. If successful, units will be utilized for satellite-to-satellite communications and weather mapping.



Bumpy Survey

Air Force Systems Command engineers are saving both time and money in growing volume with a new surveying technique.

Increased performance capabilities of new high-speed aircraft have created problems with existing runways. "Bumps" in such strips exert stresses on these aircraft which are considerably greater than on those of their slower brothers.

AFSC engineers were assigned the responsibility for determining the data necessary to allow manufacturers to build in compensatory features on new aircraft in such areas as landing gear, wing spars, and nacelle supports.

Normal survey methods proved much too slow. Data took some six months to collect and equally as long to analyze. As a result, new equipment has been developed. Consisting of two electronic, photoelectric, cell-computer carts, the new unit can do the same job in less than a week.

A horizontal light beam is transmitted across a runway surface from the sending to the receiving cart. The latter unit utilizes a "fifth" wheel which rides the runway surface. Combined, the beam and the wheel produce electrical impulses which are recorded and stored on paper tape for later analysis. Under normal conditions, a runway can now be "read" in about five days and the data evaluated in less than four hours.

The current program calls for "mapping" the runway profiles at 23 Air Force Stateside bases.

REP. WILLIAM W. SCRANTON (R-Pa.) and Brig. Gen. F. L. Vidal, Commander of the Second Air Force Reserve Region, discuss a pertinent article in a recent issue of THE AIRMAN during a meeting of the 73-member 9999th Air Reserve Squadron. "The Capitol Hill Squadron" is composed of members of Congress and Congressional staffs and committees. Commander of the unit is Sen. Barry Goldwater (R-Ariz.), a Reserve brigadier general. Meetings are held in the Senate Office Building.

Wet Weightlessness

At Wright-Patterson AFB, Ohio, USAF pilots are taking to the water —but not for a simple swim.

Scientists at the Aeronautical Systems Division are conducting submersion tests to determine how man will fare in the weightless, isolated darkness of space flight. In place of space, however, they are using water as their medium.

Pilots are dunked for periods ranging from six to 24 hours. They are placed on a reclining couch and anchored by restraining straps which prevent them from rising to the surface. Air is supplied by a tube to a pressure-suit type helmet.

Extensive physiological and psychological tests are conducted both before and after the periods of submersion to determine comparative performances of the subjects.

Duplication, of course, is not exact, but early results indicate that pilots do not tolerate heat and tilt-table heart and accelerative tests as well after tank-sessions as they did before.

THESE FIVE FLIERS COMPRISE a new multi-nation unit—the first International Test Force. Formed to put the G-model of the F-104 high-speed fighter through its paces, the unit is temporarily operating out of Edwards AFB, Calif. The members (l. to r.) are Lt. Erhard Goedert, German Air Force; Capt. W. T. Armstrong, USAF; Flt. Lt. G. R. Ayers, RCAF; Maj. Etienne Cailleau, Belgian Air Force; and Capt. Mathias G. Janssen, Netherlands Air Force. A two-place, German version of the F-104F is serving as checkout aircraft for the men. The program is scheduled for completion early next year.

Air Age Library

PROFESSIONAL READING

Richard Tregaskis has produced a vivid and detailed chronicle of America's first "spaceship" in *X-15 Diary* (E. P. Dutton, $4.95). As well as explaining the current undertaking, he outlines the programs that preceded it.

This is the Air Force Academy, Marian Talmadge and Iris Gilmore (Dodd, Mead, $2.95), views the Cadet-Way-of-Life as seen through the eyes of a First Classman and prospective Cadet.

Ernest K. Gann calls upon his own experiences as a pilot for his autobiographical *Fate is the Hunter* (Simon and Shuster, $6.00). The narrative begins with commercial aviation and proceeds through WW II into the post-war years.

Hell in the Heavens (G. P. Putnam's Sons, $4.95) is Marine Capt. John M. Foster's story of his combat adventures in the South Pacific theater during 1943 and 1944.

Our Air Force (G. P. Putnam's Sons, $2.50) is a combined photo-journalism effort by the editors of *Air Force/Space Digest* on current USAF aircraft and missiles.

D. Van Nostrand has released a revised edition of USAF Brig. Gen. Neil D. Van Sickle's *Modern Airmanship* ($9.75). Among other items, it incorporates the latest advances in both U. S. and foreign aircraft.

RELATED READING

The Princeton University Press has released two books of major importance. First is Herman Kahn's *On Thermonuclear War* ($10.00). Based on a series of well-known Kahn lectures regarding planning, strategy, and thought on war in the modern world, critics generally concede this may be the most important work of its kind in this decade.

Second is *Organizing for Defense,* Paul Y. Hammond ($7.95). This is a detailed study of the Department of Defense and a review of the various forms of organization which preceded the current structure.

In the same general category, Henry A. Kissinger has authored *The Necessity for Choice* (Harper and Brothers, $5.50). He makes a detailed effort to define what he believes to be the major foreign policies and defense issues which the nation will face in the '60s.

FICTION

The Grave of the Twin Hills, Bowen Hosford (W. W. Norton, $3.95), relates the story of internal conflict in the mind of a former USAF bombardier who returns to Japan as a newspaper correspondent.

You Ask It

Does the Airman Education and Commissioning Program (AECP) extend to those in the Reserve forces?

Currently it is restricted to active duty airmen. Details are contained in AFR 53-20.

Is it necessary to employ a lawyer when applying for veterans' benefits?

No. The personnel assigned to VA offices are well trained and happy to assist.

Does USAF have a regulation which authorizes the formation of sport parachute clubs?

A search of the regulation indexes does not reveal one and, as far as we can determine, Air Force does not sanction such organizations.

I have a nephew buried overseas. How can I determine the exact location of his grave?

Such inquiries should be directed to the branch of the service in which he served.

Will the VA accept a court order declaring presumptive death after a seven-year absence of a veteran?

Decisions in cases such as this are made on individual merit. All facts should be submitted for review.

Could you tell me what regulation governs the attainment of career Reserve status?

AFR 36-51 contains information pertaining to both active duty service commitments and procedures pertaining to career Reserve status.

My foster son was killed in a military accident recently. Am I entitled to benefits?

Yes. Submit your claim to the VA office nearest your place of residence.

Where could an individual write to obtain information pertaining to a specific event of WW II?

The Air Force Historical Division, Air University, would be the logical source of such information. Inquiries should contain as much information concerning the event as it is possible to supply.

All of my military service was during peacetime. Am I considered a veteran in VA terminology?

Yes, but not for purposes of wartime benefits as outlined in the WW II and Korean GI Bills. Any VA office can give you inclusive dates for these periods.

What is the basis for determination of eligibility for retirement pay in cases of courts-martial?

The question has been raised frequently in recent months. The only sound answer is that each will be reviewed upon request and decisions based upon the facts involved. There is no blanket answer which will cover all inquiries of this nature.

SLANTS ON SPACE

An eclipse double-header is upcoming this month. August 11 brings an annular eclipse of the Sun. On the 26th a partial eclipse of the Moon is due, and this will be the last of the four eclipses to occur in 1961.

An annular eclipse of the Sun offers a striking spectacle for lay or amateur observers. At its central phase, to earthly viewers, the Sun and Moon occupy concentric positions but the Moon appears smaller in diameter relative to the Sun. As a result, a circle or ring of light remains visible around the rim of the darkened solar disc. This bright halo is known as the annulus, a word from the Latin for ring.

The determining factor in an eclipse of this type is the Moon's distance from the Earth at the time. In passing between our planet and the Sun during this new Moon phase, our satellite casts a conical shadow which varies from about 228,000 to 236,000 miles in length. The variation is due to differences in the ellipse patterns of Earth and Moon. At its closest approach, the Moon is 221,463 miles away; at its maximum distance, the gulf measures 252,710 miles. The mean distance is computed at 239,100 miles.

On August 11 the Moon arrives at apogee, its greatest distance from our globe, and in this position the shadow it casts in passing before the Sun is in the shortest bracket and hence not long enough to reach the Earth. Thus at mid-eclipse we behold the effect of a bright halo of light encircling the hidden central portion of the Sun. The width of this luminous ring is not the same for all annular eclipses because the distances separating Earth, Moon and Sun, respectively, are subject to change.

Of all solar eclipses, 32 percent are of the annular variety. Total annular eclipses, also called central eclipses, account for another 5 percent. These start as annular phenomena, become total during a portion of their duration, then end as annulars. As for the remainder, 28 percent are total eclipses, and 35 percent are partial eclipses.

This month's annular eclipse will be visible to observers in portions of South America, South Africa, and Antarctica. The lunar eclipse later in August can be observed from Western Asia, Africa, Europe, and the Americas.

Modern astronomy recognizes 89 constellations, or large groupings of stars in the heavens. The celestial boundaries of these configurations were established by the International Astronomical Union in 1930 after a five-year survey study by a special commission created for that purpose.

Constellations known to ancient astronomers numbered only 48, according to a compilation made in the second century A.D. by Ptolemy, the Graeco-Egyptian scientist. Most of the other 40 have been added since the introduction of the astronomical telescope by Galileo in 1609.

While most constellations are usually conspicuous arrays of stars, some are small in extent and their light too dim for the ancients to have discerned with the naked eye. The constellations known to early students of the heavens were all located, so to speak, within visual range of the Mediterranean basin around which bygone civilizations flourished. Discovery of the constellations in the far southern skies did not begin until man was able to make deep penetrations into the Southern Hemisphere.

Theoretically, constellations are considered endless in depth. When any celestial object, however fantastically remote, crosses a constellation's boundary as arbitrarily fixed by the stars likewise arbitrarily defining that frontier, the visiting body is described as being *in* that particular constellation. That explains why we speak of stars, nebulae, galaxies, etc., which strew the Universe at vast distances from our own Milky Way, as being located within celestial areas outlined by stars relatively close to the Earth, as astronomical distances go.

The concept may be expressed another way. A constellation is the space address of any celestial body, natural or artificial, within its periphery. Some celestial objects are permanent residents, figuratively speaking, while others are transients.

From the latitude of New York, N. Y., (40° 45' 06") 70 of the 89 constellations are fully or partially visible in the course of a year.

Only at intervals of 15 or 17 years does Mars make its closest approaches to the Earth. Under the most favorable conditions the distance between the two planets then may be the minimum proximity figure of about 34.6 million miles. At its greatest distance from our globe, Mars is 62.9 million miles away.

The next close approach under favorable conditions is due 10 years hence in August, 1971. Such conditions occur only late in that particular month or early in September. The last close approach took place September 7, 1956, but the relative positions of the two planets was slightly short of ideal so the distance between them was a little more than the 34.6 million mile minimum.

The planets may be in opposition (the astronomical term for the phenomenon) in any month but the distance mileage will vary widely. In the 15-17 year "closest" cycle, the opposition prior to that of 1956 occurred in July, 1939, and the Earth-to-Mars distance was a little more than 36 million miles. In subsequent oppositions up until that of 1956 the distances ranged from 38.5 to 63 million miles.

—WILLIAM A. KINNEY

DO-IT-YOURSELF, ANTI-PANIC PACK

by CAPT. WILLIAM M. KLESERT
and SSGT. D. R. DEASON
MacDill AFB, Fla.

A SEGMENT of "MacDill's Finest" (flying bomber types) was loafingly poised in the Alert Building lounge, waiting for the "Horn" to rasp into life and sincerely hoping that it wouldn't.

Without any warning, a situation arose which threatened the very foundation of MacDill's part in the Alert Concept!

Which of the three TV channels should we watch next?

The decision? We shut the TV off.

One comedian in the group remarked that the lack of a television set created a critical survival situation.

"Why," he mused, "do they not put miniature TV's in survival kits?"

Although the jokester was immediately banished, the rest decided that personal survival kits were about as good a subject to kick around as any.

"Kits aren't difficult to make," one pilot said, "why, only last 1954 I started one and it's almost completed."

"That's right," said another, "I've got all the things I need, except two, all neatly stuffed in a sack at home —somewhere."

"What do we need with a personal kit anyway," another asked. "Uncle Sam provides us with one that does nicely."

One of the "older heads" remarked, "Sure, but I always feel better with a 'personalized' kit. Besides there have been cases where the parachute kit broke loose on the opening shock of the 'chute and was lost."

This made us stop and think. Within a few days after "The Day TV Was Stopped," our crew began assembling personal survival kits.

Generally, there are three kinds of personal survival kits—planned, begun-but-quit-working-on, and just-talked-about. Ours would be different—completed.

And it was, eventually, after much discussion, selection, rejection, try-it-and-see, and just plain argument about inclusion of pet articles. We think it's a pretty good, all-purpose, "foreign or domestic," personal, on-the-person-type, anti-panic pack. It weighs two and one-fourth pounds, is worn in the lower pocket of the flying suit, and has a nylon cord to tie around the legs in case the pocket rips open. The kit is slightly bulky to wear during preflight or around squadron operations, but is almost unnoticeable during flight.

It includes medical items, fishing gear, food and food supplements, plus several miscellaneous items.

Under the medical heading we took insect repellent, 12 Band-Aids, 6 surgical blades in a sealed packet, 15 salt tablets, a tube of Bacitracin, Chap Stick, a tube of Tetracain for burns and minor irritations, 15 APCs, 100 water purification tablets, 2 ammonia inhalers, some antiseptic, Vaseline gauze, and a triangle bandage.

To round out our portable, do-it-yourself doctor gear, we also included 2.5 feet of five-inch surgical tape and 12 feet of gauze bandage. For compactness, we wrapped the tape and the gauze around the triangle bandage, and the ointments were put into plastic bottles to protect them against premature puncture.

Chow time was covered with a packet of concentrated soup (four servings), instant coffee, sugar, instant cream, a dozen caramels, 10 bouillon cubes—part beef and part chicken to avoid monotony.

Then we added a few fishing flies, hooks, nylon and steel leader, an all-purpose plastic bag, tinder for fires, 10 flints and a Zippo lighter, a small compass, and a pocket-size whetstone. Included next were snare wire, safety pins, a one-gallon plastic canteen, a small file, a parachute needle, waterproof matches, a fire starter, and a hotel-size bar of soap. The file and needle are carried in a separate pocket.

We made protective covers for the kits out of scraps from the parachute shop and all metal items were protected from rust with "gunk" we got from the maintenance men. The individual items were either "scrounged," bought, or "borrowed" from home.

The kits stay with our other gear and are slipped into our flying suit pocket before every flight. During the times we are on Alert, they stay on the plane in case we really "gotta go."

Anyway, this is *our* kit. If you like it, you too can have one, but don't expect to get it made in a week—it takes a little longer to assemble everything into a tight little package.

But, when you do finally slide it into the pocket of your flying suit, maybe you'll feel as we do: "We've got us a fine little 'Insurance Policy' that might—just might—someday really insure our lives."

The air war in Korea was a curious blend of the old and the new. While modern jets rested for the night, the pilot of an old B-26 died heroically.

LIGHTING THE TARGET ROAD

For CAPT. JOHN SPRINGER WALMSLEY, Jr., September 14, 1951, was a special day—it marked the completion of nine years' service with the United States Air Force. Before it ended, however, the day was to be more than a mere anniversary; it would carve an enduring niche for Captain Walmsley in the USAF's roster of immortals.

John Walmsley's entry into the Enlisted Reserve Corps as a private on September 15, 1942, was an experience shared by many young Americans in those days. Nearly six months passed before he was called to active duty from his home in Baltimore, but by May he was assigned to Preflight School at Maxwell AFB, Ala. It was the first step on his nine-year path leading to immortality.

On November 3, 1943, 23-year-old Lt. John Walmsley became a rated pilot. His proficiency was pronounced enough to win him assignment as an instructor at Turner AFB, Ga., a job he held until July 1946.

In September of the same year Lieutenant Walmsley began his first overseas assignment, reporting to the 89th Bombardment Squadron, 38th Bomb Group, in Japan. In June 1947 he was promoted to captain.

During his tour with the 38th, Captain Walmsley served in a variety of jobs. With the 89th Squadron he performed solely in a pilot role. However, in May 1946, he moved to Group Headquarters and assumed the duties of Assistant Operations Officer in addition to continuing as a pilot. In July 1948 he was reassigned to pilot duties, joining the Group's 405th Squadron.

In February 1949 Captain Walmsley returned to the ZI and attended Air Tactical School at Tyndall AFB, Fla., graduating from that advanced training in July.

During his next series of assignments he worked hard at perfecting new skills as an aircraft controller. When the North Koreans smashed across the 38th parallel in June 1950, Captain Walmsley was serving with the 647th ACW Squadron.

With the step-up in Air Force activities which followed the outbreak of hostilities, Walmsley soon found himself engaged in such exercises as *Operation Swarmer* which were designed to train replacements to fighting perfection in this new type of aerial warfare. Meanwhile, the heroic few already engaging the Communists fought a valiant battle to keep the Reds from overrunning the peninsula. (See *U.N.'s First Air Hero*, July issue.)

By February 1951 Captain Walmsley found himself in yet another role. Assigned as an all-weather fighter pilot, he joined the 2nd Fighter Squadron, 52nd Fighter All-Weather Group at McGuire AFB, N. J.

In June Captain Walmsley was ordered to Korea as a replacement—an assignment that was to bring him into aerial combat for the first time in his career.

Upon arrival in Japan, however, hard-pressed officials decided his value as an experienced bomber pilot outweighed that of his comparatively new role in fighters. As a result he was reassigned to pilot duties with the 8th Bombardment Sq, 3rd Bomb Group.

In the days that followed, Captain Walmsley and his squadron mates flew almost incessantly. His B-26 organization undertook a variety of missions, ranging from straight bombardment runs through such assignments as acting as pathfinders for following fighters.

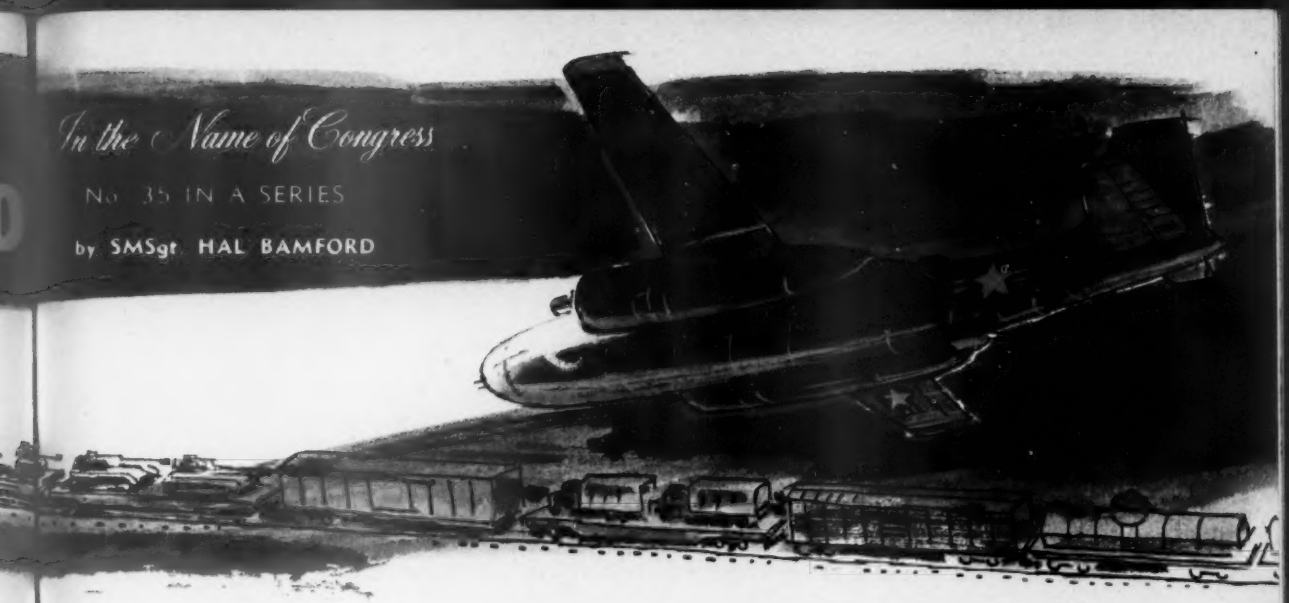
By this time the Korean conflict had already reached what historians generally agree was its "third stage."

Following the initial onslaught, during which North Koreans drove southward nearly to Pusan, UN troops had fought a stubborn delaying action, designed to stall for time to enable replacements to arrive. Within months these defensive units, strengthened by the awaited reinforcements, opened a vicious counterattack, aided by the brilliant Marine landing at Inchon in Sep-

In the Name of Congress

NO. 35 IN A SERIES

by SMSgt HAL BAMFORD



tember. By October 20 the North Korean capital at Pyongyang had fallen to the resurgent Allied forces and, a month later, the United Nations were nudging the Yalu River on the Manchurian border.

Stage two was marked by the intervention of the Chinese Reds on November 26. Shortly after New Year's these quarter-million "volunteers" had driven about 70 miles south of the 38th parallel. Here, however, the undermanned UN fighters, aided immeasurably by brjlliant air action, stiffened again and halted the Red drive.

Once more a counteroffensive was opened and once more the Red invaders were forced back. Even though enemy ranks now swelled to more than 600,000, the UN armies exerted continuing pressure until they had again crossed the 38th parallel.

Now, virtual stalemate set in. The action surged back and forth over limited terrain. On July 10, 1951, negotiations for a truce were opened. More than two long years would elapse before an armistice was signed.

Meantime, the "war" went on. On the ground the phase of swift-moving, ground-eating attacks passed and both sides settled down to the monotony of immobility and the dangers of sniper and artillery fire.

In the air the war was a different story. USAF's fighters and bombers began the chore of denying enemy troop reinforcements and supplies access to the stagnant lines. They were banned from striking at supply bases and troop concentrations on the Chinese side of the Yalu and forced to direct their assaults against moving motor columns and railroads.

Inevitably, the Reds concentrated their logistics efforts under cover of darkness. However, this failed to halt their losses. Utilizing their ingenuity, UN airmen devised a variety of means to continue the destruction they wrought from the skies. They never ceased the search for something new to help flush the enemy.

It was during such a "research" mission that Captain Walmsley sacrificed his life to assure its success. The citation published in May 1954 relates the story of the action which earned this gallant flyer USAF's 45th Medal of Honor.

Capt. John S. Walmsley, Jr., distinguished himself by conspicuous gallantry and intrepidity at the risk of his life above and beyond the call of duty near Yangdok, Korea, on 14 September 1951. While flying a B-26 aircraft on a night combat mission with the objective of developing new tactics, Captain Walmsley sighted an enemy supply train which had been assigned top priority as a target of opportunity. He immediately attacked, producing a strike which disabled the train and, when his ammunition was expended, radioed for friendly aircraft in the area to complete destruction of the target. Employing the searchlight mounted on his aircraft, he guided another B-26 aircraft to the target area, meanwhile constantly exposing himself to enemy fire. Directing an incoming B-26 pilot, he twice boldly aligned himself with the target, his searchlight illuminating the area, in a determined effort to give the attacking aircraft full visibility. As the friendly aircraft prepared for the attack, Captain Walmsley descended into the valley in a low-level run over the target with searchlight blazing, selflessly exposing himself to vicious enemy antiaircraft fire. In his determination to inflict maximum damage on the enemy, he refused to employ evasive tactics and valiantly pressed forward straight through an intense barrage, thus insuring complete destruction of the enemy's vitally needed war cargo. While he courageously pressed his attack, Captain Walmsley's plane was hit and crashed into the surrounding mountains, exploding upon impact. His heroic initiative and daring aggressiveness in completing this important mission in the face of overwhelming opposition and at the risk of his life, reflects the highest credit upon himself and the United States Air Force.

In addition to this nation's highest award, Capt. John Springer Walmsley, Jr., was also decorated with the Distinguished Flying Cross and the Air Medal with one Oak Leaf cluster during his service in Korea.

He Started It...

by WILLIAM A. KINNEY, Airman Staff

PART II

'TWAS THE WEEK BEFORE CHRISTMAS, 1784, but John Jeffries, M.D., had scant thought for the traditional festivities and gaiety associated with Yuletide.

The Boston-born physician might be described as a man in a hurry or a pioneer eager to forge on and breach another frontier.

Only a few weeks earlier he had made scientific history by going aloft to 9,309 feet in the newly invented balloon to conduct the first systematic research on the properties of the atmosphere and other phenomena—subjects that some artificial satellites are still investigating at the present late date.

The idea for a new aerial venture already had firm hold on the New Englander's imagination even before he finished preparation of his paper on the atmospheric exploratory flight of November 30, 1784, for submission to the Royal Society, Britain's celebrated academy of eminent scientists and other learned men.

In that first flight, altitude was the prime consideration for Jeffries' program. For the one now projected, distance would be decisive. He was interested in determining whether the balloon, still very much of a carnival novelty, might indeed prove a practical means of international transportation and expediter of communications. The test: could he balloon from the white cliffs of Dover across the English Channel to the French port of Calais, a straight distance of some 21 miles?

Scientifically, a new set of imponderables was involved. The first flight, from the heart of London to Dartford in Kent County, had been over land. The second would be over an expanse of water, and what effect that would have on the aerodynamic behavior of a balloon was unknown.

For the enterprise Dr. Jeffries again engaged Jean Pierre Blanchard, the same French balloonist who had been his "pilot" on the first flight of an hour and 21 minutes (for a stiff fee of 100 guineas). M. Blanchard came much higher the second time. For his services, plus a variety of other expenses, the Frenchman exacted in all more than 700 francs, or easily seven times as much as in November.

There is little doubt that Jeffries realized he was being held up, but so intent was he on the trans-Channel attempt that the money was forthcoming. However, if the New Englander thought that once financial arrangements had been settled everything would proceed smoothly, he was wrong.

The two men reached Dover December 18, preceded by their balloon, gondola, inflating equipment, and other apparatus. Jeffries' hopes for a take-off in a few days were first disappointed when it was allegedly discovered the balloon was in need of some repairs; then by an onset of foul, stormy weather.

Then rumors began to circulate. The whole project was foolhardy. The balloon lacked the capability of lifting the two men from England to France. Jeffries wanted to abandon the venture. Jeffries had cold feet. These insinuations that the doctor lacked fortitude and courage soon made him the butt of ridicule and insults. The propaganda campaign (for that it was) had woefully underestimated its intended victim, however.

Wrong Vest; Right Man

Enter a local tailor, either absent-minded or a poor one for getting addresses straight. He appeared at Jeffries' lodgings to deliver a vest—a vest which the now very vexed and harassed physician had never ordered.

This was a very peculiar vest Jeffries had a chance to determine. It was inordinately heavy. And so it should be. It was lined with lead and its purpose was secretly to increase the weight of M. Blanchard. With it he evidently hoped to demonstrate his air vehicle was incapable of lifting more than one person in its gondola or "car," since he contended 100 pounds of ballast would be needed if two men made the trip.

The misdelivery of the lead-lined vest seemed to have come at an auspicious time for Jeffries. Among Dover's officialdom the propaganda about the doctor's purportedly wavering intentions and the balloon's dubious ability to carry two men had taken serious hold.

Even the Governor of Dover Castle finally became concerned and he sought out Jeffries. The man from Boston recited all the financial demands he had been meeting from Blanchard and how he had taken care of them solely because, as the originator of the operation, he meant to see it through. He produced the contract he had entered into with Blanchard and then disclosed he also had made a further "solemn engagement" with the balloonist that:

" . . . in case of necessity on our (Channel) passage, *I would get out* of the Car *for his preservation.*"

The physician ended his remarks by coolly informing the Governor "that I was resolved to undertake the Voyage at all events, without M. Blanchard, unless he thought proper to accompany me, without further artifice or objection; as I was fully satisfied of the practicability of the plan."

The Governor thereupon summoned Blanchard, told him of the New Englander's intention to make the flight

This portrayal of the historic event conveys some of the excitement experienced by observers as the balloon floated over the choppy waters of the English Channel.

alone, if necessary, even without any experience as a balloonist, and then confronted the Frenchman with the legally binding contract he had signed. There could be no question whose day it was, and completely.

In this strange scenario writ at Dover, Blanchard's motivation and duplicity pose a baffling puzzle. There are hints which might indicate he had no zest for the admittedly risky mission, and others which could suggest he wanted to monopolize alone all glory its success would bring. He may have been reluctant to leave London; Jeffries repeatedly had to rescue him from the financial "distresses" due to his high living there. Or he may have had misgivings about the balloon's worthiness for the trip, and here he could have had reason. Whatever the case, he had failed to thwart Dr. Jeffries.

Now for La Belle France

The determined New Englander was up early on January 7, roused at 6 a.m. by no less a visitor to his bedchamber than M. Blanchard, tartly referred to as "my *little* hero" in the doctor's diary entry for the date. Overnight an intensively heavy frost had whitened the landscape, but the sun was coming up serenely and the balloonist reported he deemed both the wind and weather conditions favorable for their much deferred aerial attempt to leapfrog the Channel.

Jeffries gave him the word to get things in readiness with dispatch. Preparation of the balloon, however, would win no plaudits for energetic drive. When Jeffries, in flight gear, arrived at the takeoff site shortly before 11 o'clock, he was disappointed to see the balloon only half inflated.

The actual takeoff, bedeviled by a series of last-minute hitches, eventually came at 1:15 p.m. when the balloon cleared the cliff edge of its launch site below Dover Castle and started to ascend "gradually and most majestically."

A very large assemblage of people both from the port city, itself, and the surrounding countryside were on hand to witness the departure. In his report Jeffries comments on what "a most beautiful and picturesque" panorama this audience presented, thronging the famous white cliffs, the streets, and spilling out to crowd the extensive Dover beaches. In addition, many spectators were waterborne. A conglomerate armada of small pleasure boats and larger craft stood out from the shore to add their acclaim.

Jeffries, the expatriate loyalist son of a Boston patriot father, again had a British flag ready to wave in acknowledgment of the salutes from below. Blanchard

followed suit with the tricolor of France.

The balloon continued to gain altitude slowly but virtually all its progress, as Jeffries made note, was in that perpendicular direction. The weather was fine, sunny, and moderate in temperature. However, the offshore winds had slackened since the forenoon and tended at times to shift westerly, the wrong direction for the mission's success.

Increasing altitude gave the two men an increasingly good view of the French coastline and more favorable winds now bore them slowly toward it.

Under the warmth of the bright sun, the gas in the balloon had meanwhile been expanding until the envelope had become distended to what was believed its maximum extent for safety. The men in the gondola valved off gas, employing a different method from that used during their first flight. Too much gas escaped and the balloon started to drop fast toward the waters of the Channel. It took the swift jettisoning of half the ballast to redress the situation and the balloon began a lazy ascent.

These tense moments came when the flight was only about a third of the way across the Channel, by Jeffries' reckoning. Its effect on the voyagers can best be gauged from what they did next. They rigged slings to the ring atop the gondola where it was attached to the balloon so that they could retreat into these hammocklike improvisations in case another mischance should force their "aerial car" down to the wavetops. The time: about 2 p.m.

A second emergency was upon them all too soon. At 2:15 his barometer alerted Jeffries that they were falling again. The remaining 15 pounds of ballast was dropped without checking the descent. Next went a 34-pound package of books from Blanchard's baggage. There was a minute or so of suspense, then the balloon responded with a sluggish climb. They were over the middle of the Channel at the time.

The explanation for the second emergency must remain a matter of speculation. The balloon may have encountered an atmospheric area of thermal instability.

The French balloonist, M. Jean Pierre Blanchard.

Smithsonian Institution

As altitude was gradually regained, Jeffries found solace for the close call "in a most enchanting and alluring view of the French Coast, from Blackness and Cape Blanez to Calais," their objective.

He had scant time for the scenery. At 2:30 they were dropping once more, and with greater rapidity than before. The portion of the balloon envelope nearest the gondola seemed partially collapsed. No regular ballast remained. Over the gondola's side went whatever the two passengers could lay their hands on —apples, biscuits, other provisions; then the oars, wings and rudder which represented the primitive steering apparatus. Next they ripped away the fabric covering of the exterior and interior of their "aerial car" and cast it fluttering away. Landing grapples, lines, and winch followed. The descent continued unarrested.

With the waves only 120 yards beneath them, the men hurriedly stripped and flung their clothing from the gondola, donned cork life jackets and, in Jeffries' terse words, "prepared for the event."

They had come three-quarters of the way to France. The shore nearest them was easily visible, but the gondola was now so low that it could not clear the coastal headlands. As he moved toward his ditching sling, Jeffries glanced at his barometer and learned "the event" had been canceled. To his surprise, the gondola was rising and a big rise it would be.

"We now ascended to a much greater height than at any former period of our Voyage," he related in his paper for the Royal Society, "and exactly at three o'clock we passed over the high grounds" below Calais. ("Nothing," he confided in his own diary, "can equal the beautiful appearance of the villages, fields, roads, &c, under us, after having been so long over the water.")

One small payload item in the gondola which had not been sacrificed in the desperate jettisoning of articles to arrest the last hair-raising descent was a bundle of letters—the first international airmail. With the balloon now several miles inland and passing over inhabited places, a decision was reached to drop this in an area where chances for its recovery should be good. The reason for the decision is not given. It may have been due to the misgivings the mail would be lost during the ultimate landing of the balloon, which probably would be a haphazard operation.

So over the side went the packet of mail. Jeffries relates that he and Blanchard found amusement in following the bundle's gliding descent, "it appearing, in its progress, to pass along over enclosures, houses, roads, &c. as if running after us; and finally settled in a field, in a straight line perpendicular to us." The doctor timed the drop at five minutes. Incidentally, this packet of air mail was picked up and duly restored to its original custodians.

The rough, climactic moments of the mission now approached rapidly and the two men in the gondola were scarcely in the best condition to cope with them. Almost nude, they were stiff and benumbed with cold from the January temperatures at their altitude. A

". . . enabled me to catch hold the topmost branches . . . and thereby arrest . . . further progress . . ."

stiffening, shifting wind not only added to their physical discomfort but altered their course undesirably. Then, once more, the balloon began to lose altitude.

Off came the cork lifejackets in readiness to be dropped in lieu of ballast. With the exception of Jeffries' special barometer and a couple of empty, uninflated bladders, the jackets were the last disposable objects remaining in the gondola. As more altitude was steadily lost, the men discovered they were being carried toward a forest "more extensive than it was probable we should be able to pass entirely over."

One after another the lifejackets were jettisoned. At first, it seemed that the descent had been checked but quickly it became apparent only the angle of descent had been altered. The gondola kept hurtling downward toward the heart of the forest, thick with "very large, rough trees" which looked like guarantors of disaster.

"I felt the necessity of casting away something to alter our course," wrote Dr. Jeffries and then his experience as a physician rallied promptly to the rescue. It is commonplace today in Space Age literature to find articles treating with various ways wastes from the human body can be utilized in extraterrestrial travel. Credit the Boston doctor with being the first to hit on a variant of the basic idea and putting it into practice with good effect. Here is his verbatim account:

". . . happily (it almost instantly occurred to me, that probably we might be able to supply it from within ourselves), from the recollection that we had drank much at breakfast, and not having had any evacuation, and from the severe cold, little or no perspiration had taken place, that probably an extra quantity had been secreted by the kidneys, which we might now avail ourselves of by discharging."

He told Blanchard of his plan. Two of the empty bladders in the gondola were pressed into emergency use as "reservoirs," and between five and six pounds of liquid waste obtained, by the doctor's estimate.

". . . however trivial or ludicrous it may seem," he wrote, "I have reason to believe (this) was of *real utility* to us, *in our then situation;* for by casting it away, as we were approaching some trees in the forest higher than the rest, it so altered our course, that, instead of being forced hard against, or into them (as at that instant appeared probable . . .), we passed along near them in such a manner, as enabled me to catch hold the topmost branches of one of them, and thereby arrest the further progress of the Balloon . . ."

Use of the bladder "reservoirs" to drop what the doctor termed "our newly invented ballast" all at once, instead of discharging the liquid gradually from the gondola, made the big difference.

Halting the further progress of the balloon occurred about 3:30 p.m. Getting the gondola actually on the ground required almost another half hour. To accomplish this, the two men manipulated their aerial car and the balloon above it along the leafy roof which the trees made until a small clearing was reached and there they finally touched down.

When Dr. Jeffries clambered out of the basket onto the ground he acquired the new distinction of being the first paying international air traveler to complete a trip. He and Blanchard had to wait on the slow arrival of area residents who had seen the descent for information as to just where they were. They had landed in the Forest of Guines, not far from the village of Ardres, southeast of Calais and about a dozen miles inland from the coast. And further adventures lay in wait for the distinguished Jeffries in the future.

(To be concluded next month)

Assignmen

Scenic Photos, German Information Ce

In few countries are relations between Americ servicemen and the local population more amica than in Germany. Perhaps that is why veterans numerous overseas assignments often remark th living in Germany is more like stateside living th any other area. But despite the many similarities, tour of duty in Germany offers adventure in disc ering the beauty of a country rich in history, C World culture, and scenic grandeur.

Although your military obligation naturally com first, you will have ample time to visit places n mally out of reach for the average tourist. And G many has much to offer.

From the Black Forest to the Bavarian Alps, fr Lake Constance to the Baltic beaches, the countr captivating contrasts are strikingly in evidence. He is the birthplace of a culture that has aroused mantic associations in people the world over. Ma of the fairy stories that delight American children a of German origin. German authors have woven f and legend to produce some of the world's fin literature. From German composers have come ma of the greatest masterpieces of orchestral com sition. German philosophers through the centur

The countryside is dotted with picturesque castles. This fairyland palace in Bavaria was built by King Ludwig II, sometimes known as King Ludwig the Mad.

Flowers, frivolity, and the colorful costumes of earlier times characterize community festivals in towns, villages, and hamlets all over West Germany.

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Bold ac

Germany

by DAVE KARTEN, Airman Staff

have contributed their talents to the enrichment of western culture.

An airman who served in Germany during or shortly after WW II will be amazed at the sharp contrast between bomb-blasted ruins of 1945 and the rebuilt Federal Republic. Probably no other nation in history has made such enormous strides in so short a time. Germany now is a vigorous and affluent partner of the West European alliance.

What accounts for this remarkable comeback? Two factors were mainly responsible: humanitarian aid under the Marshall Plan and the incredible willingness of 52.5 million West Germans to match every cent of assistance with a drop of sweat. Every man, woman, and child pitched in with traditional Teutonic application to rebuild the material assets, both communal and personal, that were wiped out by five years of war.

Air Force installations in Germany are assigned to the United States Air Forces in Europe (USAFE) with headquarters at Wiesbaden. USAFE's important mission is to assist in the defense of Western Europe and to support U. S. military and civil agencies in the geographical area.

Today USAFE's men and women form a spearhead of NATO's deterrent power. In fulfilling their vital missions of training and maintaining a combat-ready air arm, USAFE units represent the largest single airpower contribution committed to NATO forces. While the Air Force's European command is not an integral part of NATO, components of it would immediately become so in the event of armed aggression. An order from Supreme Headquarters Allied Powers Europe (SHAPE) would bring the planes and missiles of USAFE into NATO, and on their way to enemy targets without a moment's delay.

West Germany is host to seven major bases, including the Ramstein headquarters of the Seventeenth Air Force, and literally dozens of smaller installations. From their bases fly the bombers and fighters that could strike deep behind the Iron Curtain. In alert positions in central Germany are the mobile missiles that can hit targets hundreds of miles from their launch platforms. Troop and cargo transports of the 322d Air Division (CC) provide the vital airlift necessary for all United States Air Forces in Europe.

Bold adventures in architecture and prosperity of its well-dressed citizens reflect the spirit of Germany in 1961.

Today's Germany is an outgrowth of an unusually turbulent past, and the trail to her present position of Free World partnership has been long.

This view of war-gutted Berlin is a familiar memory for aircrews who broke the Russian blockade in the Berlin Airlift of 1948 - 49.

Gone are the jack-boots and flamboyant militarism of other generations as West Germany assumes a new role as partner with her neighbors in NATO alliance.

HISTORICALLY, Germany is the name given to the territory of the German-speaking Teutonic tribes. Politically these were united loosely in the "Holy Roman Empire of the Germanic Nations" which dominated the European scene for hundreds of years.

Germany remained for seven centuries (962 to 1648) the heart of the Holy Roman Empire, which was a misnomer if ever there was one. It has been said that it was neither Holy, nor Roman, nor was it an empire. Until Bismarck came along in the middle 19th century, there was no real Germany; only a multitude of little principalities and independent cities. The brilliant and sometimes ruthless "Iron Chancellor" built the First Reich, as a Prussian monarchy under Wilhelm I. It lasted from 1871 until its defeat in World War I in 1918 when it was succeeded by the Weimar Republic, or Second Reich.

When Hitler became Reich Chancellor in 1933, he proceeded to ignore international treaties and precedents and turned the republic into a Fascist dictatorship. The National Socialists under "Der Fuehrer" led Germany into World War II in 1939. It ended with total defeat in 1945. The territory of the Reich was partitioned into four zones of occupation—American, French, British, and Russian—and the occupying forces assumed governmental authority. Berlin, centrally located in the Soviet Zone, was similarly divided into four sectors as it remains to the present.

In 1949, just four years after the war ended, the German Federal Republic was formed and the military government was replaced by High Commissioners in West Germany. The occupation of West Germany was terminated in 1955. At that time an agreement was reached and ratified making it the 15th member of NATO. East Germany has not joined the Federal Republic; its government is patterned after the U.S.S.R.

West Germany's NATO membership is significant because it shows that France and West Germany, who have been on opposing sides in wars, are willing to join hands to protect Europe from Communism. The forces of the Federal Republic have grown into a defense organization which makes a significant contribution to the collective military capability of NATO.

Airmen assigned to Germany will find landscape that makes lasting impressions, a mild climate, and pleasant living.

A pause for refreshment in the market place at ancient Bernkastel. Elaborate ornamental timbers are carved by hand.

WEST GERMANY is a country of approximately 95,000 square miles—smaller than the state of Nevada.

Less than two-thirds of Germany is usable farm land. Even in prewar years German farms supplied only 75 percent of the food needed. Today small farm holdings, some two million of them, predominate in West Germany. The average farm is 17 acres, compared to 302 acres for the U. S.; 28 acres for France; and 89 for England. Strips of cultivated farm lands give the countryside a patchwork appearance.

Forests, mostly evergreens, cover more than a fourth of the country. The devastation of timber, particularly as an aftermath of World War II, gave rise to rigid forestry laws. Official permission is required to fell a tree. And for every tree felled, another must be planted with certified seed and within a specified time. Germany's great natural asset is coal. Before the last war, the Ruhr District supplied about half the coal deficit in other European countries.

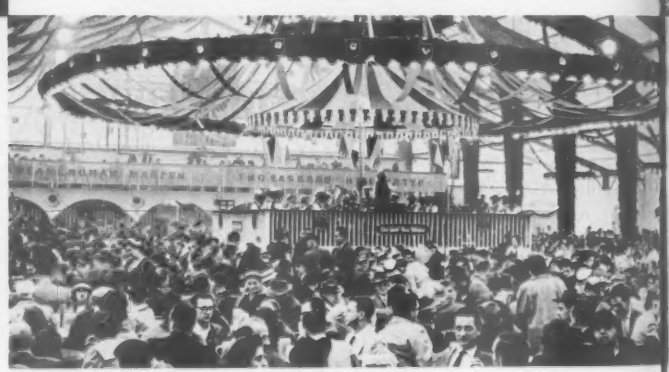
The waterways of Germany have played an important part in the nation's history and economic development. There are eight principal systems with their thousands of tributaries and networks of lakes and canals. Best known of Germany's rivers, of course, is the Rhine. Generations of generals have had to contend with this formidable natural barrier, as an asset or a liability depending on the situation. Half of Germany's prewar commerce moved by water, and the Rhine is still one of the busiest waterways in the world.

Germany has the mild climate of moderate zones. Lacking extremes in the daily as well as in seasonal and annual averages, it is pleasant and healthful. The average temperature during the coldest month, January, is around 32 degrees F. although the temperature in the mountains is about 15 degrees colder. The weather in the summer months is warm, averaging close to 70 degrees but seldom oppressive.

Vineyards rise on the hillsides behind the village of Urzig on the Mosel. Wines from here are world-famous.

Sleepy Garmisch, with its red-tiled roofs and profusion of gay flowers, is favorite vacation spot for airmen stationed at bases in West Germany.

Bavaria is the home of "oompah" music and jovial citizens dressed in leather breeches.



The famous October Festival at Munich celebrates completion of the harvest. In this giant tent, Germans and many Americans mark occasion appropriately.

Leave time and a few dollars in your pockets provide travel opportunities out of the average tourist's reach.

YOU most frequently think of Germany when you visualize images of ancient towns, rustic villages, and Pied Piper hamlets. Today you may still see and visit quaint, picturesque, half-timbered houses, and in Bavaria, houses whose walls are painted with biblical scenes. Germany's countryside is bedecked with jewel-box castles, hundreds of unbelievably blue lakes and sylvan retreats. Her Alpine vistas are rivaled only by those of Switzerland, but in contrast are the hundreds of new buildings designed in the modern spirit.

For a few dollars a day you can rent a room and live literally like a prince in the 2,000-year-old medieval castle Schoenburg, which overlooks the little walled village of Oberwesel on the Rhine, go sightseeing by stage coach, see a museum devoted entirely to the his-

Summer fun in the Rhine valley. This chair lift built over acres of grape vines leads to popular restaurant high on the hilltop overlooking the river.

During Fasching, the pre-lenten carnival season, some strange sights may be seen on the streets of German cities. Here a witch, complete with broom, leads the parade.

The white sports of winter enjoy wide popularity. High mountain slopes with as much as six feet of snow underfoot offer unparalleled conditions for skiing.

tory of beer. You can visit the Bavarian Alps whose chief center is Munich with its museums and famous art galleries; Berchtesgaden, an old market town and popular winter sports center, formerly the site of Hitler's infamous mountain hideout; the Black Forest, which is so named because of the density and darkness of its trees, and which is studded with small lakes; and of course, Berlin. Many tours are arranged by Special Services at nominal cost.

The fall is mostly dry and mild. It spreads, with breath-taking contrasts, a carpet of riotous color over the plains and river valleys, from white to gold, crimson, and the rich dark hue of the pines. Autumn is also the time of merriment with harvest festivals honoring the grape and the hop, two of the major crops. Many of the traditional customs associated with the festivals date back to pre-Christian times.

Air Force people stationed in Germany find winter a glorious season of the year. There are many resort areas dedicated to winter sports. Skiing on the continent originated in the Black Forest area. Few European countries have as many and as varied regions where winter sports are practiced with as much enthusiasm. The high and secondary mountains bear a new snow cover of three to six feet at heights from 1,500 to 3,000 feet, and six feet or more above the 3,000-foot level.

Germany's central European location makes it possible to reach Austria, Switzerland, Rome, Paris, or Copenhagen overnight by train; in a few hours by plane.

Airmen stationed on sites in Germany may find themselves situated in the vicinity of quaint story-book villages.

A little bit of the U.S.A. is found at each of the major bases scattered throughout Germany.

Major AF bases in Germany are fully equipped with all the usual facilities. In some places Base Exchange offers limited repair and service facilities for cars licensed by USAF personnel. All housing is excellent, but limited; waiting time is sometimes extensive.

IF you are stationed at one of the seven major bases, it sometimes will be hard to realize that you are in a foreign land. The major bases are self-sufficient and provide U. S.-styled family housing with complete shopping and recreation facilities. There are also schools which offer education equal to the best American standards in grades one through 12. Although the largest and most fully equipped hospital is at Wiesbaden, first-class medical and dental care are available no matter where you are stationed in Germany.

Some of the Major Bases Where You May Be Stationed

Headquarters USAFE and major support activities are centered in and around Wiesbaden. Lindsey Air Station, the location of Hq USAFE, is only a short way from the heart of the city. The base is not a landing site but is serviced by Wiesbaden Air Base, the center of flight operations for the area, about 25 minutes driving distance away. Wiesbaden, with its population of 250,000 people, is the location of one of the finest warm springs in Germany.

Rhein-Main Air Base, 20 miles north of Wiesbaden, is just five miles southwest of the center of Frankfurt and is divided into two sections: one is operated by USAFE; the other by civil authorities as an international terminal serving 22 civilian airlines.

Ramstein Air Base is one of the largest bases in the USAFE area. It is in the heart of the Rhineland-Palatinate, and within two miles of the small town of Ramstein, a farmers' market place with a population of about 5,000. The nearest town of any size is Kaiserslautern, about 10 miles from the base, with a population of about 70,000.

Sembach Air Base is located eight miles on the other side of Kaiserslautern in the direction of the old city of Mainz.

Hahn Air Base is located in the heart of the Hunsrueck Mountain Range, directly on the road between Koblenz on the Rhine and Trier on the Moselle.

Bitburg and Spangdahlem Air Bases are located about 10 miles apart, approximately 15 miles from the Luxembourg border in an area that is predominantly agricultural, hilly, and interspersed with wooded areas. Bitburg, the nearest town, has 8,000 inhabitants.

One of the smallest installations within the USAFE command, Tempelhof, occupies a unique position as the only U. S. base entirely surrounded by Communist territory. Tempelhof Central Airport is in the heavily populated southern section of Berlin, only two miles from the center of the city.

THE *Airman* OFFICIAL JOURNAL OF THE AIR FORCE

IS FOUR YEARS OLD THIS MONTH

AIRMAN includes *all* members of the Air Force. Each copy is intended for 10 readers. Be sure to

PASS IT ON

Every skill and competence and management technique that our military establishment can find must be employed for the challenge which confronts us. Every resource and energy of the nation must be precisely directed toward the end of holding free man's access to space and his freedom from space-imposed tyranny.

—Hon. Eugene M. Zuckert
Secretary of the Air Force